S. HRG. 100-351

COMMODITY DISTRIBUTION PROGRAM REFORM ACT OF 1987, S. 305

HEARING

BEFORE THE

SUBCOMMITTEE ON
NUTRITION AND INVESTIGATIONS

OF THE

COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

ON

S. 305

A BILL TO AMEND THE NATIONAL SCHOOL LUNCH ACT TO IMPROVE THE ADMINISTRATION OF THE COMMODITY DISTRIBUTION PROGRAM, AND FOR OTHER PURPOSES (COMMODITY DISTRIBUTION PROGRAM REFORM ACT OF 1987)

MAY 19, 1987

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COMMODITY DISTRIBUTION PROGRAM REFORM ACT OF 1987, S. 305

TUESDAY, MAY 19, 1987

U.S. SENATE,
SUBCOMMITTEE ON NUTRITION AND INVESTIGATIONS OF THE
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:37 a.m., in room 332, Russell Senate Office Building, Hon. Tom Harkin (chairman of the subcommittee) presiding.

Present or submitting a statement: Senators Harkin, Dole, Boschwitz, and McClure.

STATEMENT OF HON. TOM HARKIN, A U.S. SENATOR FROM IOWA

Senator HARKIN. The Subcommittee on Nutrition and Investigations will come to order.

Good morning. I want to welcome you all to today's hearing by the Subcommittee on Nutrition and Investigations. The subject of our hearing today includes S. 902 and H.R. 1728, both bills to extend the USDA pilot projects involving the use of cash-in-lieu of commodities [CASH] and commodity letters of credit [CLOC]. We will also hear testimony relating to S. 305 and S. 236. Both of these bills seek to improve the National School Lunch Program and the Commodity Distribution Program by directing the Secretary of Agriculture to improve: one, the quality, two, the packaging, three, the distribution, and four, the timing of commodity deliveries to better satisfy user needs. These bills also call for the prompt replacement of stale, spoiled, or damaged commodities, as well as the establishment of an advisory council to monitor USDA's responsiveness to recipient agency needs and concerns.

In addition these bills also direct the Secretary to provide food items and commodities to recipient agencies that are consistent with the "Dietary Guidelines for Americans" published jointly by the Departments of Agriculture and Health and Human Services.

For those of you who are not familiar with this program, I would like to give you a brief summary of its origins and purposes.

In 1935, Congress provided the first significant authority for the Federal food donation with the enactment of section 32 of Public Law 74-320. The intent of this provision was to remove agricultural surpluses from the marketplace and dispose of them so as not to interfere with normal sales. The State welfare departments took over this responsibility and basic recipient categories were identi-

fied. These included schools, nonprofit summer camps for children, charitable institutions, and needy families.

The National School Lunch Act was passed by Congress in 1946. It had as its initial purpose not only providing a market for agricultural products, but also to improve the health and well-being of the Nation's youth. This was the beginning of a change in the concept of the food distribution program's major purpose. The program has subsequently been modified and refined so as to better serve the parties involved: the farm community, the recipient agencies, and the individuals the agencies serve.

Today the Commodity Distribution Program handles almost $2.1 billion worth of commodities, 40 percent of which are distributed under the National School Lunch Act. The remaining 20 percent are distributed to other school programs, needy persons, and institutions. The Food and Nutrition Service [FNS] has overall authority to administer the Commodity Distribution Program and authorizes the Agricultural Marketing Service and the Agricultural Stabilization and Conservation Service to obligate funds to cover purchases.

Notwithstanding the Commodity Distribution Program's achievements, critics have complained about significant administrative shortcomings at both the Federal and State level. These critics claim that commodities are: inconsistent in quality, not packaged in usable forms and sizes, delivered on schedules inconsistent with the needs of recipient agencies, inconsistent with the "Dietary Guidelines for Americans," as published by the USDA and the Department of Health and Human Services, and these goods are not easily replaced when delivered in unsatisfactory condition.

We of this subcommittee therefore find ourselves at a crossroads. Should we continue with the Commodity Distribution Program? Should it be altered, and, if so, how should it be altered? Or, should we look at other means to achieve these goals, such as the two pilot project bills before us today involving the commodity letter of credit and the cash-in-lieu of commodities programs?

It is the purpose of this Nutrition Subcommittee hearing to investigate these issues and attempt to answer these questions. To that end we will hear from advocates and critics of these programs. We will hear from the USDA, which administers these programs, a representative from the recipient agencies, a representative from the commodity producers, and a consumer investigative reporter who has recently studied how this program is working.

Our first witness today is Hon. John W. Bode, Assistant Secretary for Food and Consumer Services, the Department of Agriculture.

John, let's have you sit up here rather than down there. Get closer, John. [Laughter.]

Senator BOSCHWITZ. I might say, Mr. Chairman, you are the first Democrat who has asked him. [Laughter.]

Senator HARKIN. At this point I would like to ask my distinguished colleague from Minnesota if he has an opening statement.

Senator BOSCHWITZ. No, sir.

Senator HARKIN. I have some prepared statements that, without objection, will be made a part of the record. Senators Robert Dole and James McClure, the National Grange, and the United Fresh

Fruit and Vegetable Association. Their prepared statements will be made part of the record.

[The prepared statement of Senators Dole and McClure follows:]

[The prepared statement of the National Grange and the United Fresh Fruit and Vegetable Association can be found on pages 226 to 232.]

STATEMENT OF SENATOR BOB DOLE
HEARING ON COMMODITY DISTRIBUTION BILL

MR. DOLE. ON THE FIRST DAY OF THE 100TH CONGRESS, I INTRODUCED S. 236, LEGISLATION WHICH WOULD PROVIDE THE AUTHORITY TO IMPROVE THE CURRENT COMMODITY DISTRIBUTION SYSTEM, AS IT RELATES TO THE SCHOOL LUNCH AND OTHER CHILD NUTRITION PROGRAMS. I WAS PLEASED TO HAVE SENATORS COCHRAN, BOSCHWITZ, HELMS, LUGAR, AND WILSON JOIN ME AS COSPONSORS.

THE DISTINGUISHED CHAIRMAN OF THIS COMMITTEE, SENATOR LEAHY, HAS INTRODUCED SIMILAR LEGISLATION, AND THE HOUSE AGRICULTURE COMMITTEE HAS ALREADY ACTED ON H.R. 1340, A BILL WHICH INCORPORATES MODIFICATIONS IN THE WAY USDA DISTRIBUTES SURPLUS AGRICULTURAL COMMODITIES TO VARIOUS NUTRITION PROGRAMS. IN FACT, IT IS MY UNDERSTANDING THAT THE HOUSE COMMITTEE WORKED VERY CLOSELY WITH THE DEPARTMENT OF AGRICULTURE ON THE LANGUAGE IN ITS BILL. IT IS LIKELY THAT THIS COMMITTEE WILL ADOPT THE SAME LANGUAGE, WHICH HAS BEEN CAREFULLY DRAWN UP.

BACKGROUND

FOR SOME TIME NOW, THIS COMMODITY DISTRIBUTION SYSTEM HAS BEEN CRITICIZED AS BEING UNWIELDY, INEFFICIENT, AND TOO CUMBERSOME TO ADMINISTER. FOR MANY MONTHS, VARIOUS CONCERNED GROUPS, INCLUDING THE NATIONAL SCHOOL FOOD SERVICE ASSOCIATION (ASFSA), AND MANY TRADITIONAL COMMODITY GROUPS, HAVE MET WITH OFFICIALS FROM THE U.S. DEPARTMENT OF AGRICULTURE IN AN ATTEMPT TO COME UP WITH RECOMMENDATIONS FOR IMPROVEMENT. THESE GROUPS ARE TO BE COMMENDED FOR THEIR CONSTRUCTIVE APPROACH TO THE PROBLEMS INVOLVED.

CRITICISM OF EXISTING PROGRAM

OPPONENTS OF THE COMMODITY DISTRIBUTION PROGRAM CLAIM THAT USDA COMMODITIES ARE INCONSISTENT IN QUALITY, NOT PACKAGED IN USEABLE SIZES AND FORMS, AND ARE DELIVERED ON A SCHEDULE THAT IS INCONSISTENT WITH THE NEEDS OF RECIPIENT AGENCIES. THESE ELEMENTS MAKE THE PROGRAM ADMINISTRATIVELY INEFFICIENT. WHEN COMMODITIES ARE DISTRIBUTED IN DAMAGED OR POOR CONDITION, THEY ARE NOT EASILY REPLACED. FURTHER, THESE COMMODITIES ARE OFTEN NOT CONSISTENT WITH THE DIETARY GUIDELINES FOR AMERICANS, PUBLISHED BY USDA.

NEED FOR CLARIFICATION OF STATUTORY AUTHORITY

ONE OF THE OBSERVATIONS THAT HAS EMERGED AS A RESULT OF THESE MEETINGS WITH THE DEPARTMENT OF AGRICULTURE IS THAT THE COMMODITY DISTRIBUTION PROGRAM DOES NOT HAVE THE STATUTORY BASE THAT APPLIES TO THE OTHER FOOD AND NUTRITION PROGRAMS. WITHOUT THE NECESSARY STATUTORY AUTHORITY, IT WOULD BE DIFFICULT FOR USDA TO IMPLEMENT MANY OF THE RECOMMENDATIONS FOR IMPROVEMENT THAT HAVE BEEN MADE. IN SHORT, THE DEPARTMENT NEEDS ADDITIONAL AUTHORITY TO CORRECT THE DEFICIENCIES THAT HAVE BEEN IDENTIFIED IN THE CURRENT SYSTEM.

THE DISTRIBUTION OF VARIOUS FOODS AND COMMODITIES BY THE SECRETARY OF AGRICULTURE IS AUTHORIZED BY A VARIETY OF LAWS, INCLUDING SECTION 32 OF THE AGRICULTURAL ADJUSTMENT ACT, SECTION 416 OF THE AGRICULTURAL ACT OF 1949, SECTION 4(A) OF THE AGRICULTURE AND CONSUMER PROTECTION ACT OF 1973, SECTIONS 6 AND 17(B) OF THE NATIONAL SCHOOL LUNCH ACT, SECTION 311 OF THE OLDER AMERICANS ACT OF 1965, AND SECTION 409 OF THE DISASTER RELIEF ACT OF 1965.

THIS LEGISLATION WILL PROVIDE THE LANGUAGE TO ASSURE PROPER ADMINISTRATION OF THE PROGRAM, AND CLARIFY THE USDA'S AUTHORITY TO MAKE CHANGES THAT WILL IMPROVE THE DISTRIBUTION OF COMMODITIES

TO NUTRITION PROGRAMS UTILIZING THESE COMMODITIES. THE SENATOR FROM KANSAS IS PLEASED TO HAVE INTRODUCED THIS BILL, BECAUSE IT IS SOMETHING THAT THE ADMINISTRATION BELIEVES WILL BE HELPFUL IN ITS EFFORTS TO ADDRESS THE EXISTING PROBLEMS. I ASK THAT A COPY OF A LETTER FROM AGRICULTURE SECRETARY RICHARD LYNG BE INCLUDED IN THE RECORD AT THIS POINT.

CONCLUDING REMARKS

IT IS MY HOPE THAT THIS LEGISLATION, WHICH IS NOT THE LEAST BIT CONTROVERSIAL, WILL BE GIVEN SPEEDY CONSIDERATION BY THE AGRICULTURE COMMITTEE AND ITS NEW LEADERSHIP. I UNDERSTAND THAT THERE IS BIPARTISAN SUPPORT FOR THE GOALS OF THIS BILL, AND EXPECT THAT THE COMMITTEE WILL ACT EXPEDITIOUSLY TO CORRECT THE CURRENT FLAWS IN THE COMMODITY DISTRIBUTION PROGRAM.

STATEMENT BY SENATOR JAMES A. MCCLURE
BEFORE THE SUBCOMMITTEE ON NUTRITION OF THE FULL AGRICULTURE COMMITTEE
ON AN AMENDMENT TO EXTEND COMMODITY LETTER OF CREDIT AND CASH OPTIONS TO SCHOOL DISTRICTS WHICH PARTICIPATED IN THE NATIONAL SCHOOL LUNCH PILOT STUDY
MAY 19, 1987

MR. CHAIRMAN: I WANT TO THANK YOU FOR HOLDING THIS SUBCOMMITTEE HEARING IN SUCH AN EXPEDITIOUS MANNER AND FOR ALLOWING ME TO COME BEFORE THE SUBCOMMITTEE TO SPEAK IN SUPPORT OF AN AMENDMENT TO S. 305. THIS AMENDMENT, WHICH YOU HAVE REVIEWED AND ACCEPTED AS A PART OF THE BILL ALLOWS SCHOOL DISTRICTS CURRENTLY RECEIVING CASH OR A COMMODITY LETTER OF CREDIT TO CONTINUE TO DO SO UNTIL 1989. IT IS A REASONABLE AMENDMENT WHICH WILL NOT COST THE DEPARTMENT OF AGRICULTURE ANY ADDITIONAL MONEYS BEYOND WHAT THEY ALREADY SPEND ON THE SCHOOL LUNCH PROGRAM. I INTRODUCED THIS IN BILL FORM SEVERAL WEEKS ALONG WITH EIGHT CO-SPONSORS. SINCE THAT TIME THE LIST OF CO-SPONSORS HAS GROWN TO 18. IN ADDITION, THE HOUSE SUPPORTS THIS LEGISLATION AS IT PASSED THE HOUSE ON APRIL 7 AS H.R. 1728.

IN 1980, CONGRESS REQUIRED THE DEPARTMENT OF AGRICULTURE TO CONDUCT A DEMONSTRATION PROJECT AND ASSOCIATED EVALUATION OF THE

NATIONAL SCHOOL LUNCH PROGRAM. THIS STUDY WAS TO COMPARE THE EFFECTIVENESS AND EFFICIENCY OF THE COMMODITY SYSTEM OF DISTRIBUTION TO A CASH AND LETTER OF CREDIT SYSTEM. THE EVALUATION CALLED FOR THE PROVISION OF INFORMATION ON THE OPERATIONS AND RELATIVE EFFECTIVENESS OF THE THREE ALTERNATIVES FOR MEETING THE DUAL OBJECTIVES OF SUPPORTING FARM PRICES AND PROVIDING NUTRITIOUS FOOD TO SCHOOL CHILDREN. THE EVALUATION WAS TO EXAMINE THE EFFECTS OF THE THREE SYSTEMS IN THE FOLLOWING WAYS:

1. THE EXTENT TO WHICH THE CASH AND CLOC SYSTEMS RESULTED IN CHANGES IN THE COMPOSITION AND/OR QUANTITY OF FOOD ACQUIRED BY SCHOOL FOOD AUTHORITIES;

2. THE BENEFITS ACCRUING TO FARMERS FROM THE COMMODITY DONATION PROGRAM AND CHANGES THAT MIGHT OCCUR UNDER THE CASH OR CLOC SYSTEMS;

3. THE EFFECTS OF THE CASH AND CLOC SYSTEMS ON THE COST OF OPERATING SCHOOL LUNCH PROGRAMS AT THE LOCAL, STATE, AND FEDERAL LEVELS;

4. THE EFFECTS OF THE CASH AND CLOC SYSTEM ON STUDENTS, INCLUDING CHANGES IN THE NUTRITIONAL CONTENT OF THE FOODS AVAILABLE FOR USE IN SCHOOL FEEDING PROGRAMS, AND THE CHANGES IN STUDENT-LEVEL PARTICIPATION IN THE LUNCH PROGRAM;

5. THE FEASIBILITY OF ADMINISTERING AND MONITORING THE CASH AND CLOC SYSTEMS ON A NATIONAL BASIS, INCLUDING THE IMPACT OF SUCH A CHANGE ON OTHER PROGRAMS CURRENTLY ELIGIBLE TO RECEIVE COMMODITIES.

IN ORDER TO ACCOMPLISH THE CONGRESSIONAL PURPOSE, APPROXIMATELY 100 SCHOOL DISTRICTS THROUGHOUT THE UNITED STATES AGREED TO PARTICIPATE. ABOUT 69 OF THESE SCHOOL SYSTEMS CHANGED THEIR OPERATING SYSTEMS EITHER TO COMMODITY LETTER OF CREDIT OR CASH PROGRAMS. THESE SCHOOLS FOUND THAT USING EITHER THE LETTER OF CREDIT OR CASH PROGRAMS THEY HAD LOWER OPERATING EXPENSES, INCREASED STUDENT USE, AND LOWER PLATE WASTE. UNFORTUNATELY, THE USDA STUDY, DID NOT ADMIT THIS. AS A RESULT OF QUESTIONS ARISING FROM THE FINAL REPORT, CONGRESSMEN GOODLING AND FORD AND MYSELF REQUESTED THE GENERAL ACCOUNTING OFFICE REVIEW THE METHODOLOGY AND RESULTING CONCLUSIONS OF THE USDA STUDY.

THE GAO STUDY SHOWS THAT THE USDA STUDY IS DEFICIENT AND WEAK TO THE POINT THAT IT SIGNIFICANTLY REDUCED THE STATISTICAL VALIDITY AND USEFULNESS OF THE STUDY. IN THE FINAL EVALUATION REPORT, USDA REPORTED THAT THE OPERATING COSTS UNDER THE CASH, CLOC AND COMMODITY SYSTEMS WERE ESSENTIALLY THE SAME. THE GAO REVIEW OF THE COST DATA INDICATES THAT USDA MAY HAVE OVERSTATED TWO MAJOR OPERATING COST COMPONENTS--LABOR AND TRANSPORTATION AND STORAGE--FOR CASH AND CLOC PARTICIPANTS. THIS POINTS TO WHAT I KNOW IS TRUE BECAUSE I HAVE MET WITH THE FOOD SERVICE REPRESENTATIVES FROM SCHOOLS USING CASH AND CLOC--THERE ARE SIGNIFICANT SAVINGS

IN LABOR, TRANSPORTATION, AND STORAGE FOR SCHOOLS USING THE CLOC AND CASH ALTERNATIVES.

LET ME SHARE WITH YOU PART OF A STATEMENT BY LIZANNE J. FRANZEN OF THE ARCHDIOCESE OF PHILADELPHIA, "FOR THE PAST FOUR YEARS, THE ARCHDIOCESE HAS BEEN PARTICIPATING IN THE COMMODITY ALTERNATIVE PILOT STUDY AS AS CASH SITE, AND ONLY DURING THIS TIME HAVE WE BEEN ABLE TO PROVIDE FULL COMMODITY ENTITLEMENT TO THE CHILDREN IN OUR PROGRAM. PRIOR TO RECEIVING A CASH ALTERNATIVE TO ACTUAL FOOD ITEMS, WE REALIZED ONLY ABOUT .02 A MEAL IN COMMODITY BENEFITS - A DIFFERENCE OF .095 PER MEAL BETWEEN WHAT WE WERE GIVEN, AND WHAT WE COULD PASS THROUGH TO THE CHILDREN IN THE WAY OF GOOD QUALITY FOOD, VARIETY AND SERVICES. HISTORICALLY, WE HAVE ALWAYS HAD DIFFICULTY DERIVING THE FULL BENEFIT FROM THE COMMODITY PROGRAM FOR REASONS BEYOND OUR CONTROL LIKE MOST MAJOR CONSOLIDATED ARCHDIOCESAN PROGRAMS AND MANY LARGE, URBAN PUBLIC SCHOOL DISTRICTS, WE LACK EXTENSIVE PREPARATION FACILITIES IN THE SCHOOLS WE SERVE. SOME OUR INNER-CITY BUILDINGS ARE CLOSE TO 100 YEARS OLD. WE HAVE NO CENTRAL WAREHOUSE AND NO CENTRAL FACILITY FOR THE PREPARATION OF FOOD. WE USE COMMERCIALLY PREPARED, PRE-PACKAGED MEAL COMPONENTS SUPPLIED UNDER CONTRACT WHICH RESULT IN A HIGHER FOOD COST BUT A MUCH LOWER ON-SITE LABOR COST."

"SINCE OUR ON-SITE LABOR FIGURE IS SO LOW - ACCOUNTING FOR ONLY ABOUT 12% OR OUR TOTAL BUDGET, WE CANNOT REDUCE COSTS IN THIS AREA ANY FURTHER, AND MUST CONTROL THEM IN THE FOOD AREA. RECEIVING AN ALTERNATIVE TO THE COMMODITY PROGRAM IS ONE WAY WE

HAVE BEEN ABLE TO DO THIS, AND HAS MEANT THE DIFFERENCE BETWEEN FINISHING THE LAST FOUR YEARS TWO THOUSAND DOLLARS IN THE BLACK OR FIFTY-EIGHT THOUSAND DOLLARS IN THE RED."

"UNDER THE COMMODITY PROGRAM, THE .095 DIFFERENCE IN ENTITLEMENT WAS LOST TO US IN THE FOLLOWING MANNER:

1. PROCESSING CHARGES- BECAUSE OF OUR LACK OF PREPARATION FACILITIES, MOST COMMODITIES HAVE TO BE PROCESSED PRIOR TO USE - 20 POUND TURKEYS, 29 OZ. CANS OF MEAT, 5 LB. BLOCKS OF CHEESE, #10 CANS OF FRUIT, 20 LBS BLOCKS OF GROUND BEEF NONE OF THESE CAN BE PUT ON THE SERVING LINE AS IS. PROCESSING FEES ARE OFTEN OVERLOOKED BY FOOD SERVICE DIRECTORS AS A COST THAT ACTUALLY DECREASES THE "CASH" VALUE OF THE "FREE" COMMODITIES RECEIVED. WHETHER THIS CHARGE IS PAID OUT IN FOOD COSTS, AS WE DO IT, OR PAID OUT IN LABOR COSTS IN EACH SCHOOL AS IT IS DONE IN SELF-PREPARATION DISTRICTS, IT IS STILL PAID OUT.

2. WAREHOUSING EXPENSES - INCLUDE THE COSTS OF STORAGE OF COMMODITIES AFTER ACCEPTANCE BY THE SCHOOL DISTRICTS, HANDLING FEES CHARGED FROM THE WAREHOUSE TO THE SCHOOL, AND RESTORAGE COSTS ARE ADDED AFTER A COMMODITY HAS BEEN SENT OUT FROM A WAREHOUSE FOR PROCESSING AND RETURNED FOR STORAGE UNTIL IT CAN BE USED BY THE SCHOOL DISTRICT. DOUBLE HANDLING CHARGES, AND SOMETIMES TRIPLE CHARGES CAN RESULT FROM RESTORAGE OF PROCESSED COMMODITIES.

3. UNUSABLE COMMODITIES - SOME COMMODITIES, EITHER OF THEMSELVES OR BECAUSE OF PACKAGING, CANNOT BE UTILIZED IN OUR PROGRAM, FOR EXAMPLE ALL OF OUR MEAL COMPONENTS ARE DELIVERED FROZEN TO THE SCHOOLS AND WE COULD USE EVERY FROZEN COMMODITY VEGETABLE WE COULD BE OFFERED. WE MUST REJECT ALL CANNED VEGETABLES, BECAUSE BY THE TIME THEY WOULD GO THROUGH THE MANUFACTURING AND PACKAGING SYSTEM, THEY WOULD BE THE CONSISTENCY OF BABY FOOD. OTHER ITEMS LIKE TUNA AND SALMON, CORNMEAL AND ROLLED OATS, FIGS AND WALNUTS, CANNOT BE WORKED INTO OUR PROGRAM BECAUSE WE DO NO ON-SITE PREPARATION.

WITH SOME ITEMS THE PACKAGING IS NOT CONDUCIVE TO MASS PRODUCTION: OPENING 29 OZ. CANS OR #10 CANS OF PRODUCT FOR A COMPANY USED TO HANDLING 50 GALLON DRUMS TRANSLATES INTO A SUBSTANTIAL LABOR FACTOR AND CAN ACTUALLY NEGATE THE COMMODITY VALUE.

4.TIMELY RECEIPT OF COMMODITIES - REGARDLESS OF WHAT SYSTEM A DISTRICT USES TO PRODUCE MEALS, THE TIMING OF COMMODITIES CAN BE A SERIOUS PROBLEM. IN OUR SYSTEM, THE TIMELY PRODUCTION OF OUR MEALS AND THEIR COMPONENTS REQUIRES THE ADVANCE PURCHASE OF THE ITEMS TO BE USED IN THEIR MANUFACTURE. THE BULK OF THESE ITEMS MUST ARRIVE IN THE PLANT BETWEEN JULY AND MARCH. THE MOST FREQUENT COMMODITY ALLOCATION PATTERN WE ENCOUNTERED IN PENNSYLVANIA WAS THE RECEIPT OF VIRTUALLY NOTHING BUT RESIDUAL COMMODITIES UNTIL ABOUT NOVEMBER, SMALLER ALLOCATIONS THROUGHOUT THE REMAINDER OF THE SCHOOL YEAR WITH WIDE INTERVALS BETWEEN

SHIPMENTS, AND MAJOR ALLOCATIONS IN MAY AND JUNE. WHEN THIS OCCURS, SCHOOL DISTRICTS WITHOUT SUFFICIENT CAPACITY TO STORE LARGE QUANTITIES OF FOOD OVER THE SUMMER ARE FACED WITH TWO CHOICES: REFUSAL OF SOME OR ALL OF THEIR ALLOCATION OR STORAGE IN A COMMERCIAL WAREHOUSE. QUITE OFTEN THESE CHARGES, ARE NOT IDENTIFIED AS DECREASING THE VALUE OF THE COMMODITIES.

FOR THE PAST FOUR YEARS WE HAVE BEEN FREE FROM MANY OF THESE PROBLEMS. ...RECEIPT OF CASH IN LIEU OF COMMODITIES HAS MADE THE FOLLOWING DIFFERENCES TO OUR PROGRAM:

1. PROCESSING CHARGES HAVE BEEN GREATLY REDUCED BECAUSE WE ARE ABLE TO CONTROL THE INITIAL FORM OF THE FOOD ITEM.

2. WAREHOUSING EXPENSES ARE VIRTUALLY NON-EXISTENT SINCE WE ARE NOT USING AN ARTIFICIAL TRADE CHANNEL OR MAINTAINING TWO DIFFERENT INVENTORIES IN SEPARATE LOCATIONS.

3. DECREASED ENTITLEMENT DUE TO COMMODITIES WE CANNOT UTILIZE HAS NOT OCCURRED SINCE, WITH THE CASH, WE ONLY PURCHASE WHAT WE NEED AND CAN USE IN THE FORM WE CAN USE IT.

4. TIMING OF THE RECEIPT OF THE PRODUCT HAS ALSO NOT BEEN A PROBLEM SINCE WE CAN PURCHASE WHAT WE NEED WHEN WE NEED IT.

IN OTHER WORDS, FOR THE PAST FOUR YEARS WHILE WE HAVE BEEN ON THE CASH PROGRAM, WE HAVE BEEN ABLE TO PROVIDE THE CHILDREN IN OUR PROGRAM WITH THE FULL VALUE OF THE COMMODITY BENEFITS TO WHICH THEY ARE ENTITLED BY LAW. A RETURN TO COMMODITIES WOULD MEAN AN OUTRIGHT LOSS TO OUR PROGRAM OF APPROXIMATELY $60,000 A YEAR."

MR. CHAIRMAN: THIS IS BUT ONE EXAMPLE OF HOW ALTERNATIVES TO THE COMMODITY PROGRAM CAN BENEFIT OUR CHILDREN. THE MARRIAGE BETWEEN THE NATIONAL SCHOOL LUNCH PROGRAM AND THE COMMODITY PROGRAM IS AN OLD UNION - OVER FORTY YEARS OLD. IN THAT TIME, THE SCHOOL LUNCH PROGRAM HAS CHANGED TO MEET THE NEEDS OF THE TIMES - IN NEW MENU ITEMS AND PACKAGING, METHODS OF SERVICE, AND MODIFICATIONS RESULTING FROM SMALLER ENROLLMENTS AND REDUCED PER MEAL REIMBURSEMENTS. IN MANY WAYS THE COMMODITY PROGRAM IS MUCH THE SAME AS IT WAS IN 1946. THE ENTIRE SYSTEM MUST BE SCRUTINIZED THE WAY OTHER FEDERAL PROGRAMS HAVE BEEN AND ALTERNATIVES MUST BE CONSIDERED. PROBLEMS HAVE ARISEN AND ALTERNATIVES OFFERED BUT THE USDA HAS CONSISTENTLY REFUSED TO IDENTIFY ANY BENEFITS TO BE GAINED FROM OFFERING ALTERNATIVES TO THE COMMODITY PROGRAM, IN FACT THEY STILL DO NOT BELIEVE THAT THERE IS ANYTHING WRONG - THEY HAVE YET TO SET UP AN EFFECTIVE METHOD OF GATHERING COMPLAINTS FROM SCHOOL DISTRICTS AND ACTING ON THOSE COMPLAINTS. I BELIEVE THAT THEY REGARD THE SCHOOL LUNCH PROGRAMS OF THIS COUNTRY AS A DUMPING GROUND FOR EXCESS FARM PRODUCTS.

I REALIZE THE NEED TO PROVIDE A MECHANISM FOR GOVERNMENT PURCHASES OF EXCESS PRODUCTION. IF THIS TRUELY HELPS THE FARMER WE MUST CONSIDER THIS ALSO. HOWEVER, FOR THE FEDERAL GOVERNMENT TO RUN A PROGRAM WHICH IS INFLEXIBLE AND PROVIDES, AT TIMES QUESTIONABLE FOODS TO SCHOOL DISTRICTS, WITH NO EFFECTIVE MEANS OF DEALING WITH PROBLEMS OR OFFERING ANY ALTERNATIVES TO MEET THE NEEDS OF THE DIFFERENT SCHOOL SYSTEMS IS OUTRAGEOUS. IF THE GOVERNMENT IS TO PURCHASE THESE FOODS AND DISTRIBUTE THEM AT

LEAST MEET WITH THE SCHOOL DISTRICTS AND REALIZE THE PROBLEMS AND COSTS CREATED BY THE COMMODITY PROGRAM. I DO NOT BELIEVE THAT USDA HAS EVEN BEEN EFFECTIVE IN THIS REGARD. I BELIEVE THAT ALTERNATIVES SHOULD BE OFFERED TO THE COMMODITY PROGRAM.

IT WILL RESULT IN NO REDUCTION IN SUPPORT TO THE FARMERS. STUDENT EAT FOOD, FOOD COMES FROM FARMS. WHAT THE GOVERNMENT DOES IN TIMES OF OVER PRODUCTION ON FARMS IS TO PURCHASE THE EXCESS AND FORCE IT ON CHILDREN IN OUR SCHOOL LUNCH PROGRAMS. THE USDA SEEMS NOT TO CARE IF THE CHILDREN EAT THE FOOD OR THROW IT AWAY. ONE SCHOOL FOOD DISTRICT REPRESENTATIVE STATED THAT THE REASON THE GOVERNMENT DOES NOT FORCE THIS FOOD ON THE MILITARY IS BECAUSE THE MILITARY COCSISTS OF GROWN MEN AND WOMEN WITH GUNS WHO CAN SAY NO! CHILDREN MUST TAKE WHAT THEY ARE GIVEN.

I BELIEVE THAT TODAY'S TESTIMONY WILL POINT UP THE WEAKNESSES IN THE CURRENT COMMODITY PROGRAM. THERE WILL BE TESTIMONY LATER TODAY WHICH SHOWS THAT GOVERNMENT PROVIDED FOODS ARE HIGHER IN FATS AND SODIUM BECAUSE OF THE INCREASED PROCESSING THEY UNDERGO. WE ARE FORCING ON OUR CHILDREN FOOD WHICH WE OURSELVES WOULD REJECT. IT IS TIME FOR A CHANGE, IT IS TIME FOR CHANGES PRESENTED IN THIS BILL, AND IT IS TIME FOR THE USDA TO RECOGNIZE THAT ALTERNATIVES TO THE COMMODITY PROGRAM ARE USEFUL AND CAN PROVIDE NUTRITIOUS SCHOOL LUNCHES AND STILL USE FARM PRODUCTS.

MR. CHAIRMAN: MY AMENDMENT WILL ALLOW THOSE SCHOOL DISTRICTS WHO PARTICIPATED IN THE PROGRAM TO MAINTAIN THE SYSTEM THEY ARE NOW

UNDER IF THEY CHOOSE. MANY OF THE PARTICIPANTS HAVE EXPRESSED TO ME THEIR DESIRE TO MAINTAIN THE CASH OR CLOC PROGRAM AS IT SAVES THEM MONEY AND PROVIDES FLEXIBILITY TO PROVIDE FOOD THAT STUDENTS WILL EAT. THE PURPOSE OF THE SCHOOL LUNCH PROGRAM IS TO GET KIDS TO EAT NUTRITIOUS FOODS. IF THE FOOD IS THROWN AWAY, WE HAVE FAILED IN OUR PURPOSE. THE CASH AND CLOC PROGRAMS ARE PROVEN AS A WAY TO REDUCE COSTS AND INCREASE STUDENT USAGE -- WITHOUT REDUCING THE USE OF OUR COMMODITIES. SCHOOLS WHO ARE USING THE LETTER OF CREDIT OR CASH STILL USE AGRICULTURE PRODUCTS--IN FACT THEY CANNOT USE ANYTHING ELSE--STUDENTS EAT FOOD AND FOOD COMES FROM FARMS. LETTER OF CREDIT AND CASH ONLY CHANGE THE WAY THE SCHOOL DISTRICTS RECEIVE THE COMMODITY.

THE COMMODITY LETTER OF CREDIT PROGRAM HAS BEEN A BOON TO THOSE WHO HAVE TRIED IT. MS. CONSTANCE HEVLY, R.D. RECENTLY WROTE AN ARTICLE IN SCHOOL BUSINESS AFFAIRS ENTITLED "AN ALTERNATIVE TO COMMODITIES" IN WHICH SHE STATED, "THE LAST FOUR YEARS, THE COMMODITY LETTER OF CREDIT (CLOC) SITES IN THIS PILOT STUDY HAVE DEMONSTRATED THAT THE CLOC SITES HAVE WORKED IN EVERY SIZE SCHOOL DISTRICT AND IN EVERY REGION OF THE UNITED STATES. ...BY FAR THE GREATEST SAVINGS CAN BE MADE BY THE LOCAL PURCHASE OF ALL BONUS COMMODITIES. (I COULD HAVE USED 1.5 TIMES MORE DAIRY PRODUCTS BY USING MY DAIRY MONEY TO BUY COTTAGE CHEESE, CREAM CHEESE, SWISS CHEESE, YOGURT, JACK CHEESE, SOUR CREAM, ICE CREAM AND MILK FOR THE STUDENTS, AS WELL AS THE BUTTER, CHEESE AND DRIED MILK THAT THE GOVERNMENT SENDS.)"

THIS ARTICLE, I BELIEVE FAIRLY REPRESENTS THE GAINS TO BE MADE FROM ALLOWING THE USE OF COMMODITY LETTER OF CREDIT.

THE USDA SAYS THAT THE COMMODITY PROGRAM NOW IN PLACE WORKS BETTER THAN THE ALTERNATIVES. I DO NOT BELIEVE THIS AND NEITHER DO THOSE WHO HAVE BEEN ABLE TO USE THE CLOC AND CASH PROGRAMS. THE CURRENT COMMODITY PROGRAM MAY WORK BETTER FOR THE USDA, BUT THE COMMODITY LETTER OF CREDIT ALTERNATIVE STILL MET ALL OF THE FARM SUPPORT OBJECTIVES AND WORKED MUCH BETTER FOR THE SCHOOL DISTRICTS. TEST SITES FOUND THAT CLOC DISTRICTS :

SAVED THE COST OF FROZEN FOOD STORAGE;

SAVED FREIGHT EXPENSE FOR COMMODITIES;

SAVED WAREHOUSE LABOR COSTS;

SAVED KITCHEN LABOR COSTS BY USING LESS LABOR INTENSIVE FOODS;

INCREASED STUDENT USE;

REDUCED PLATE WASTE;

WERE ABLE TO COORDINATE DELIVERY WITH MENUS;

HAD FOOD COSTS AS LOW OR LOWER THAN THE VALUE SHOWN BY USDA;

CONTRIBUTED TO THE LOCAL ECONOMY;

RELIEVED THE FEDERAL GOVERNMENT OF THE COST OF PURCHASE, STORAGE AND DISTRIBUTION OF SURPLUS FOOD;

WERE ABLE TO UTILIZE MORE FRESH FRUITS AND VEGETABLES;

ELIMINATED MONEY TIED UP IN FOOD PRODUCTS IN WAREHOUSES;

STIMULATED LOCAL COMPETITION AMONG VENDORS;

HAD THE ABILITY TO TRADE COMMODITY LETTERS OF CREDIT OVER THE PHONE NATIONWIDE BEFORE PURCHASES WERE MADE, THUS ALLOWING FOR LOCAL PREFERENCES;
RECEIVED MORE USABLE COMMODITIES;
WERE ABLE TO SERVE FOOD PURCHASED WITH CLOC FUNDS BEFORE COMMODITY SCHOOLS WERE EVEN NOTIFIED THEY WERE GOING TO RECEIVE IT IN SOME CASES.

THE USDA STATED THAT THE PRESENT COMMODITY PROGRAM PROVIDES SIGNIFICANTLY MORE FOOD TO THE SCHOOL LUNCH PROGRAM. THIS IS NOT ADVANTAGEOUS TO THE DISTRICT IF IT SITS IN THE WAREHOUSE BECAUSE THE KIDS WON'T EAT IT OR PARTICIPATION DROPS BECAUSE THE KIDS WON'T BUY IT OR IT ENDS UP IN THE GARBAGE CAN.

THE AMERICAN SCHOOL FOOD SERVICE ASSOCIATION AND THE NATIONAL FROZEN FOOD ASSOCIATION AD HOC COMMODITY PROGRAM STUDY GROUP ENTERED INTO A JOINT RESOLUTION THAT STATED THAT BOTH ORGANIZATIONS WOULD CONTINUE TO SUPPORT THE USDA COMMODITY DISTRIBUTION PROGRAM UNTIL JULY 1987, BUT TO ELIMINATE FURTHER EROSION OF THIS SUPPORT, A CONCERTED EFFORT MUST BE MADE TO CORRECT THE DEFICIENCIES AND SEEK IMPROVEMENTS OF THE CURRENT COMMODITY DISTRIBUTION SYSTEM.

THE COMMODITY LETTER OF CREDIT AND CASH SYSTEMS OF PROVIDING NUTRITIOUS SCHOOL LUNCHES DOES WORK. IT SAVES MONEY, INCREASES FOOD CONSUMPTION AND MORE IMPORTANT THAN ANYTHING ELSE IT PROVIDES FOOD THAT SCHOOL KIDS WILL EAT. THE 69 SCHOOL SYSTEMS WHICH HAVE CHANGED THEIR PROGRAMS TO ACCOMMODATE THE CONGRESSIONALLY MANDATED STUDY AND SHOULD NOT BE FORCED BACK INTO A SYSTEM WHICH THEY KNOW IS LESS DESIRABLE. I URGE MY COLLEAGUES TO REVIEW THESE ALTERNATIVES AND WORK WITH ME TOWARD CHANGING THE SCHOOL LUNCH/COMMODITY PROGRAM FOR THE BETTER.

THANK YOU MR. CHAIRMAN.

Senator HARKIN. Mr. Secretary, welcome again to the subcommittee. I guess this is your first time before the subcommittee.

Your full statement will be made a part of the record.

STATEMENT OF HON. JOHN W. BODE, ASSISTANT SECRETARY FOR FOOD AND CONSUMER SERVICES, U.S. DEPARTMENT OF AGRICULTURE, ACCOMPANIED BY GEORGE A. BRALEY, DEPUTY ADMINISTRATOR FOR SPECIAL NUTRITION PROGRAMS, DR. SUZANNE S. HARRIS, DEPUTY ASSISTANT SECRETARY FOR FOOD AND CONSUMER SERVICES, AND EDDIE F. KIMBRELL, AGRICULTURAL MARKETING SERVICE, COMMODITY SERVICES

Mr. BODE. Thank you, Mr. Chairman. I am pleased to have with me today Dr. Suzanne Harris, Deputy Assistant Secretary for Food and Consumer Services; and George Braley, Deputy Administrator for Special Nutrition Programs in the Food and Nutrition Service.

In summarizing my testimony, sir, I just want to point out that since the Great Depression, a half century ago, the U.S. Department of Agriculture [USDA] has been providing food to schools to help them prepare nutritious, low cost meals for the Nation's school children. For all those years, donated foods from USDA have been the essential ingredient in the recipe that has made the National School Lunch Program the outstanding success it is today.

Not only have those commodities helped schools, but their purchase has direct benefit for American farmers as well. Through the commodity program, the Department is able to intervene and purchase food when markets are depressed. This helps the farmer by increasing demand for products in order to prevent further price declines. This does help the farmers and is a bargain buy for the schools.

Congress mandated some years ago an examination of the Commodity Purchasing and Distribution Program, and alternatives that are being suggested for it.

I would like to speak briefly about that multi-year study in the National School Lunch Program that compared commodities to two alternatives—cash and letters of credit. The cash system simply replaced USDA food with cash assistance. Under the letter of credit alternative, schools received commodity letters of credit [CLOC's] which were redeemed for certain types of foods.

The study, which was mandated by Congress, began in the 1981–82 school year and ended in the 1984–85 school year.

Without a doubt, this study was one of the largest pilot projects ever conducted by the Food and Nutrition Service. It concerned about 2 percent of our National School Lunch Program. It was conducted in 96 school districts in 29 States, and it affected 825,000 children—one of every 50 in the country.

I think there are three important findings to keep in mind. First, that compared to cash and commodity letters of credit alternatives, the present commodity program provides more food to the lunch program. Under the current distribution program we calculated that the market value of the commodities annually donated to schools could be as much as $100 million more than the Federal subsidy provided on the alternative systems.

Second, the study found the flexibility of the cash and commodity letters of credit systems allowed school districts the opportunity to purchase more processed, ready-to-eat products. Therefore, under the alternative systems, a higher portion of the Federal food dollar was spent on processing, with less food expenditures going directly to the farmer.

Recently, I realize, there has been discussion about sodium and fat content in foods. One of the other secondary findings was, that because of increased processing under the alternative systems, there was more sodium present than under the functioning of the commodity system.

Finally, the study concluded that cash and commodity letters of credit sites, by purchasing more processed products, decreased the amount of commodities removed from the market, and thus reduced the use of several key commodities such as beef and chicken.

The American School Food Service Association and the National Frozen Food Association reviewed a report of that study and did their own work in coming up with a no-holds-barred report on how improvements could and should be made in the operation of the Commodity Purchase and Distribution Program.

The American School Food Service Association leadership met with Secretary Lyng and discussed their concerns. The Secretary charged Deputy Secretary Peter Myers to establish a task force involving all parts of the Department of Agriculture at senior levels. We have now completed our work. We have done a top-to-bottom review of the commodity system, and are scheduling briefings now for interested groups on specific nuts and bolts changes that will be made. Also, we will be investigating how to improve further the Commodity Purchase and Distribution Program.

I think a summary statement would be, the commodity program is working better now than it ever has, but it can work significantly better still; and we are dedicated to make those efforts, and keep working to improve it.

Also, we recently hosted a meeting among representatives from the American School Food Service Association and the National Association of State Agencies for Food Distribution to begin the difficult process of writing standards of practice for State food distribution programs, so we can better work with the States in improving their operations in the commodity activities.

In turning to the legislation, and attempting to be brief, we do think the authority and flexibility provided the Secretary in section 32 should be maintained so that agricultural objectives can continue to be met successfully as well as our feeding programs.

We have one concern. The concern is with the advisory council established in H.R. 1340. We have successfully received input from relevant groups through ad hoc work groups and task forces, and we don't feel the establishment of yet another advisory council is necessary. In fact, it is somewhat redundant. The Child Nutrition Advisory Council is regularly briefed and involved in commodity issues. Thus, we see no need to establish a new council with its attendant costs.

With that as a conclusion of the summary of my prepared statement Senators, we will be delighted to try to answer any questions.

[The prepared statement of Mr. Bode follows:]

TESTIMONY OF JOHN W. BODE

ASSISTANT SECRETARY FOR FOOD AND CONSUMER SERVICES

U.S. DEPARTMENT OF AGRICULTURE

BEFORE THE

NUTRITION AND INVESTIGATIONS SUBCOMMITTEE

SENATE AGRICULTURE COMMITTEE

MAY 19, 1987

Mr. Chairman, and members of the Subcommittee, it is a pleasure for me to appear before you today to present the Administration's views concerning legislative proposals and the commodity program in general. Since the Great Depression, a half century ago, the United States Department of Agriculture (USDA) has been providing food to schools to help them prepare nutritious, low cost meals for the Nation's school children. For all those years, donated foods from USDA have been an essential ingredient in the recipe that has made the National School Lunch Program the outstanding success it is today.

Not only have those commodities helped schools, but their purchase has direct benefit for American farmers as well. Through the commodity program, the Department is able to intervene and purchase food when markets are depressed. This helps the farmer by increasing demand for products in order to prevent further price declines.

The fact that the commodity program has successfully fulfilled its dual objectives of helping schools and farmers for many years makes it a program worth keeping. However, in order to keep it effective, we agree there is a need to examine the program thoroughly to see if it can be improved, updated or otherwise changed to make it work even better. USDA is committed in its efforts to more efficiently operate this vital program.

Let me speak briefly about about a multi-year study in the National School Lunch Program that compared commodities to two alternatives -- cash and letters of credit. The cash system simply replaced USDA food with cash assistance. Under the letter of credit alternative, schools received commodity letters of credit (CLOC's) which were redeemed for certain types of foods.

The study, which was mandated by Congress, began in the 1981-82 school year and ended in the 1984-85 school year. However, Congress has allowed participating cash and CLOC sites to continue their current mode of receiving commodity assistance until June 30, 1987.

Without a doubt, the study was one of the largest pilot projects ever conducted by the Food and Nutrition Service. It was conducted in 96 school districts in 29 States, and it affected 825,000 children -- one of every 50 in the country.

Early last year, the Department published the findings of the study. The results do not support a change from the current commodity distribution system.

Briefly, the study concluded:

- That compared to the cash and CLOC alternatives, the present commodity program provides more food to the lunch program. Under the current distribution program we calculated that the market value of the commodities annually donated to schools could be as much as $100 million more than the Federal subsidy provided on the alternative systems. This estimate is obtained by multiplying the two cent per meal differential in the market value of the entitlement commodities reported in the study by the estimated number of meals served (4.9 billion) including lunches, breakfasts, and ala carte sales. This estimate assumes that the study findings can be generalized to the Nation as a whole.
- The study found the flexibility of the cash and CLOC systems allowed school districts the opportunity to purchase more processed, ready-to-eat products. Therefore, under the alternative systems, a higher portion of the Federal food dollar was spent on processing with less food expenditures going directly to the farmer.
- Finally, the study concluded that Cash and CLOC sites, by purchasing more processed products, decreased the amount of

commodities removed from the market, and thus reduced the use of several key commodities such as beef and chicken.

While the study supports the continuation of the commodity program, it did contain a number of suggestions for improvement. The American School Food Service Association (ASFSA) took these study findings and, utilizing their own operating experiences, undertook a major review of the commodity program. Working with the National Frozen Food Association, the American School Food Service Association issued a no-holds-barred report on its concerns about the commodity program as it currently operates. The report told us that our customers wanted better quality food, a more reliable delivery and ordering system, and a better communications system. Since receiving this report, the Department has been very serious in addressing each and every recommendation.

Secretary Lyng met with the leadership from the American School Food Service Association so that he could personally hear their concerns. The Secretary established a task force to bring all the parties in the Department together who can make the commodity distribution program even more responsive to the needs of schools and other recipient agencies. That task force has reviewed all aspects of the USDA commodity program, particularly

those areas highlighted by the American School Food Service Association's report.

The task force was chaired by Deputy Secretary of Agriculture, Peter Myers, and it included the administrators and deputy administrators of the agencies that have related responsibilities with the commodity distribution program and the assistant or under secretaries for each of these agencies.

The task force has now completed its review and recently briefed Secretary Lyng on the results of its efforts. We are now scheduling briefings for ASFSA, the State Distributing Agencies, the National Frozen Food Association as well as other agriculture and education related organizations. Within the next week or two, we will also be briefing both House and Senate staff who have an interest in the commodity program.

Another area of concern expressed by the American School Food Service Association is inconsistent service among State commodity programs. Regardless of how well USDA does its job, local school districts, as well as other outlets, depend on the state distribution system to provide them with good service at a reasonable cost. The American School Food Service Association's comments and our own studies have shown wide variation in quality

of service, charges for service and amount of information provided among the States. This is a serious problem and one which the National Association of State Agencies for Food Distribution has agreed to work on with the American School Food Service Association and USDA. We recently hosted a meeting among representatives from the American School Food Service Association, the National Association of State Agencies for Food Distribution and USDA to begin the difficult process of writing standards of practice for State food distribution programs. This is the first time such a meeting has been held, and I believe that it is a significant step toward consistent, well run food distribution programs throughout the 50 States and territories. The standards developed at that meeting are very ambitious. They are now out for review by all State agencies.

Now let me turn to the legislation you are considering. In general, the Department does not object to the provisions contained in legislation that has been reported out of the House Agriculture Subcommittee -- H.R. 1340. We do think that the authority and flexibility provided the Secretary in Section 32 should be maintained so that agricultural objectives can continue to be met successfully. However, we have one concern.

The concern is with the advisory council established in H.R. 1340. We have successfuly received input from relevant groups through ad hoc work groups and task forces. Also the Child Nutrition Advisory Council is regularly briefed and involved in commodity issues. Thus, we see no need to establish a new council with its attendent costs.

Thank you for the opportunity to express the Department's views on this important piece of legislation and our related activities in this area. I am greatly encouraged with the interest in commodities shown by the Congress, all parts of USDA, the American School Food Service Association, the State commodity directors and food producers and processors. Working together we are in a position to set the stage for the continued successful operation of the commodity purchase and distribution system into the 1990's and beyond.

Senator HARKIN. Thank you very much, Mr. Bode, for summarizing your position so well.

I have a few questions I want on the record. In your prepared statement, you mention that schools get more actual food provided through the School Lunch Program. I want to add another word. Does that also mean that schools get more food of value under the Commodity Distribution Program than under the cash assistance?

Mr. BODE. Yes, sir. What in essence we are talking about is how much processing is being done. Whether the letter of credit system or the cash system is—and the study found that it is—likely to cause more processing to be done.

Senator HARKIN. So they are not getting more food bulk but they are getting more food value; is that correct?

Mr. BODE. Yes, sir, I think so. Particularly, food value can mean many things. One thing that was of concern to us is a higher level of sodium present.

Senator HARKIN. I am going to get into the nutrition aspect later. I mean just the amount of money that goes per unit of food that you buy.

Mr. BODE. Yes, sir.

Senator HARKIN. If schools get more food value under the program then why would some school districts prefer the cash?

Mr. BODE. I think it goes right back to one of the other findings in the study; that being that schools have greater flexibility if they receive cash or letters of credit. The local school food service personnel have a great deal of discretion, certainly complete discretion in a cash system over what foods are provided in the lunch program. And the cash system, of course, operates wholly independently of agricultural needs; so they just don't have to worry about anything else.

Senator HARKIN. You feel that if we can address some of these other problems, in terms of sizing, packaging, delivery, all the things I mentioned, which your study group also focused on, that will answer a lot of the problems that they have. In other words, getting cash instead of the commodities will solve a lot of the problems.

Mr. BODE. I think it will, sir. I need to also say that I doubt we'll ever have a system that is absolutely perfect. I have recently talked to a school food service director who wanted to go back to receiving full carcass turkeys which we were proud we had moved away from at the encouragement of some others.

You are not always going to please everybody; but with the increased number of options that are provided, we will increase the likelihood of meeting the needs of the various schools as well as addressing the important agricultural objectives; and that is the real strength of this program; it's a dual objective program. It helps agriculture as well as our schools.

Senator HARKIN. I have just been notified that we have a cloture vote at 11 o'clock. I guess you have time constraints, too.

Mr. BODE. A little bit.

Senator HARKIN. I have a couple of other questions here. Did you see the WRC-TV's five part series on the School Lunch Program; or have you had anyone brief you about it?

Mr. BODE. I have seen it; yes, sir.

Senator HARKIN. I didn't get to see it myself, but I am wondering about your reactions to it.

Senator BOSCHWITZ. If you want, Mr. Chairman, I will come over to your office and we will look at it together.

Senator HARKIN. I think we are going to see a little bit of it here this morning.

Senator BOSCHWITZ. Fine.

Senator HARKIN. We will get together and work out a time that is mutually convenient.

Local news reports, and other reports from around the country, are very critical of the amount of fat and salt in school lunches that were served.

Do you agree with that statement? Could you put it in modified terms? Would you tell me how you feel about that statement? Do you use too much fat, too much salt in the diets?

Mr. BODE. I think we have a longstanding concern; we have been working with the leadership of the American School Food Service Association about the levels of fat, and sodium in the School Lunch Program. That has been a broader dietary concern with the Department of Agriculture; and that's why we have included specific statements encouraging moderation, and generally reduced levels for much of the population, of fat as well as sodium. And that certainly holds true for the School Lunch Program; it is a special area of concern.

With respect to the local news story, this WRC story, I really think the real story here is much more a matter of flunking in reporting rather than flunking lunch.

Senator BOSCHWITZ. Would you repeat that?

Mr. BODE. I said I believe the story there is much more one of flunking reporting than flunking lunch, Senator.

The meals were not analyzed in that program. Some entree items were analyzed, but less than adequate methodology was used. The findings do not reflect real differences. The analysis did not measure the normal variability between items, and therefore the reporter did not say whether their claims had significance whatsoever.

Sodium is one component that was measured; hot dogs were one of the prominently described items. An example I think I would refer to, is one of the cardinal points in the development of that story. The example was that a hot dog that was reported to be high in sodium in using that very flawed methodology to conclude that, was reportedly provided by USDA. Therefore, the commodity system in USDA's providing that hot dog was a very bad thing.

We immediately informed the news station that we did not provide that hot dog. The last time USDA bought hot dogs was 1974. They at no time, in subsequent airing, corrected that.

Senator HARKIN. How were they provided?

Mr. BODE. They were provided in a school lunch, but it was not a USDA-purchased hot dog, as WRC reported, and furthermore, it was one of the major points that WRC made in moving from pure problems locally—and let's examine these differences between schools, let's look at hot dogs; and in their nutritional analysis. Supposedly they did a complete nutritional analysis; we only heard about sodium and fat levels.

We did not hear anything about protein, vitamins and minerals. There is more to nutrition than sodium and fat levels.

At any rate, their invalid comparison between schools, on hot dogs between schools, they then move from the highest reported highest sodium level hot dog; and based on an inaccurate statement, moved to an indictment of USDA's purchasing activities. I don't recall them ever saying in that series that USDA has special low fat purchase specifications on beef, for example; or that we have low sugar specifications in our purchase of fruits.

I think it was a bit of sensationalism during a ratings period.

Senator HARKIN. You don't mince your words——

[Laughter.]

Mr. BODE [continuing]. I guess a lot of people who work closely with the School Lunch Program are very distressed by it because of what we perceive to be a very one-sided presentation.

The report failed to note that—or certainly do anything more than a passing note—we do a tremendous amount of good in the School Lunch Program. I don't recall anything said about a major national study that was done that found school lunches superior to alternative lunches. That was not my idea of balanced reporting.

Senator HARKIN. Well, we're going to hear from this person, and we're going to take a look at it and see what is in this. I have children in public schools, and participating in the School Lunch Program, and I am concerned about it. I think you are right, there are two levels of proteins, they give you vegetables, and it's very sufficient and well-prepared.

I am concerned about dietary guidelines, and, if I am not mistaken, dietary guidelines do provide for either a maximum or at least some category of how many calories from fat ought to be——

Mr. BODE. Sir, the dietary guidelines, and I will ask Dr. Harris to join, do not include quantitative statements, so there are no numbers in there about how many calories or how much fat or how much sodium; and there are reasons for that.

Dietary guidelines are a general statement, a statement intended for the general public, and everybody in the general public certainly is not alike, and their dietary needs are not the same. Thus, it is general guidance that's provided.

Would you like to add anything to that, Suzanne?

Dr. HARRIS. I think on the question of fat, there are numerical guidelines that are available from various sources. The "Dietary Guidelines for Americans," the publication between the two departments, does not include that information for a number of reasons. Primarily because finding the numerical range is very difficult, and what numbers are out there are generally given for adults. When you move to children, you're in another situation. School children are growing children, and the American Academy of Pediatrics, whom I think should be recognized as the major voice on what is good nutrition for children, recommend 30 to 40 percent of calories from fat. That number is not in the dietary guidelines——

Senator HARKIN. How much?

Dr. HARRIS. It is 30 to 40 percent of calories from fat.

Senator HARKIN. And what are we attempting to do? Do we have anything in the School Lunch Program to try to get that down, or——

Dr. HARRIS. We have that in the School Lunch Program. I think if you were to analyze the meals in the School Lunch Program, they would fall within that range. Certainly the entree items which were analyzed on the TV show would fall within that range, even if you assume that school lunch is providing one-third of the calories for that child per day.

Senator HARKIN. Perhaps I missed what you said. Did you say that Americans should get between 30 and 40 percent?

Dr. HARRIS. No; I'm saying that the American Academy of Pediatrics—we're talking about children, now, in the school lunch system—dealing with adults there are different recommendations made by other groups. None of these recommendations are made by the Department of Agriculture or the Department of Health and Human Services in the dietary guidelines.

The 30 to 40 percent of fat from—calories from fat is the guidance given by the Nutrition Committee of the American Academy of Pediatrics. That is considered to be what is necessary for all children to have adequate calories, energy to grow. Certain children would not need that much; others would need maybe more.

Senator HARKIN. Well, I will ask some other people. I thought that all recent studies and guidelines indicate that we should receive something less than 20 percent of our calories from fat.

Dr. HARRIS. No, sir. I think you would find that a very stringent diet, and would probably be very difficult for children to survive on adequately.

Senator HARKIN. That sounds awfully high to me. I am going to look into this further.

Mr. BODE. Senator, may I add one other thing, realizing there is a time limit. To control from Washington the fat levels, or for any other feature of the School Lunch Program, is simply not something we can do. So much of fat levels, for example, is determined by cooking methods. I really dread the idea of the Department of Agriculture trying to tell the very able and experienced school food service directors of this country how they should cook——

Senator HARKIN. Maybe we should have some guidelines that indicate how many calories from fat you want to have in the School Lunch Program. Then school lunch cooks can cook however they want.

Mr. BODE. I guess that goes back to the point that Dr. Harris was making. We seem to be generally in the ballpark, expressed first by the American Academy of Pediatrics, and that is certainly a reputable group.

Senator HARKIN. I understand that, but I am going to continue to pursue this with other people.

Mr. BODE. We would be happy to pursue it with you, Senator.

Senator HARKIN. I have a couple other things to ask. Prior to 1980, did the USDA guidelines specify maximum quantities of sodium and fat?

Mr. BODE. No, sir. I earlier referred to some specifications for low fat and low sugar. Low fat in our ground beef for example; we try to purchase 22 percent fat or less in ground beef. Also low sugar, light syrup packing in our food purchases. Those were done, as I recall, in 1979 or so, and we have not done anything to reduce the emphasis on that effort.

Senator HARKIN. So, there has been no change that you are aware of, right?

Mr. BODE. I do not know of any. It was 1978.

Mr. KIMBRELL. We go in the fat content from 24 to 28 percent.

Senator HARKIN. Are you referring to the ground beef?

Mr. KIMBRELL. In the ground beef.

Senator HARKIN. I see. Were there any maximums for sodium or fat set at one time that have now been rescinded?

Mr. BODE. Not that comes to mind, Senator. We will go back and check if there is anything that we have missed.

Senator HARKIN. How do you feel about the compliance of the School Lunch Program with the U.S. dietary guidelines?

Mr. BODE. I think the information that I have seen is responsibly done. The School Lunch Program is consistent and operating in a fashion that is consistent with the dietary guidelines.

We are very proud of the fact that this major national study found that the School Lunch Program is providing lunches superior to alternative lunches. That is quite a strong endorsement for a feeding program.

Senator HARKIN. Do you support the request for extension of the commodity letters of credit [CLOC] or cash-in-lieu commodities?

Mr. BODE. No, sir, we do not. The studies, it was back in 1984 and 1985, there was about 2 percent of the School Lunch Program that was in it. We feel the evidence stacks up in a fashion that is most appropriate, that we continue our commodity system. We ought to dedicate ourselves to running that system well throughout the country instead of having this subprogram operating with cash and letters of credit; so I find no rationale for continuing with the cash sites whatsoever. I do not know of anyone who is really urging that is the direction our country should go.

Senator HARKIN. We are obviously going to hear some criticism of the program today. Would you consider a few years extension, just of what we have?

Mr. BODE. I am sorry. The existing sites? No. You know, our view is the study was over in 1984–85. It is really time for that 2 percent of the School Lunch Program to move back in with the rest of the country and get in to our commodities program and distribution program, and recognize that this is the program with dual objectives, including providing some reasonable assistance to agriculture as well.

Senator HARKIN. Thank you very much.

Senator BOSCHWITZ. Mr. Chairman, I have just time to ask a couple of questions, and then my other committee is meeting and I need to go over there. They just called now; they did not have a quorum.

I wonder, if it is possible to see whatever they have here; WRC, and perhaps engage the investigative reporter in a little bit of dialog with Secretary Bode, and maybe we can get to the bottom of this a little bit.

It is interesting to me to read this study, and I wonder if there have been any studies of what the kids eat instead of school lunch in the event that they do not eat school lunch.

Mr. BODE. As I recall, that was addressed in the national study as basically brown-bags to school.

Senator Boschwitz, in that national study we compared school lunches through the National School Lunch Program to meals from other sources, including brown-bag meals brought from home as well as foods purchased at a commercial establishment off campus; and overall, for proteins, vitamins and minerals, the School Lunch Program was found to be significantly better than those alternative meals. And that study has been widely acclaimed and has been reviewed extensively in the scientific community, and has represented major support for the School Lunch Program on nutritional grounds.

Senator BOSCHWITZ. Well, I'm not a nutritionist, Mr. Chairman, but like you, I have four kids who went through high school and participated in the School Lunch Program; either that or they went across the street to McDonald's. And I note that the report, as I understand the report, criticizes a little amendment that I had that allowed whole milk to be served in a school lunch—too high a fat content I guess. Before the amendment, only 2 percent or skim milk had to be offered. I am very anxious to see that program which I didn't see.

I often go to school lunches, because it is a good way to see a lot of folks, particularly in some of the other counties. You would appreciate that, Mr. Chairman. And I find them very good. I am not a nutritionist, again, but they seem to be pretty good, and the people seem to be very dedicated and competent people in the school nutrition program.

I would say that regarding the Commodities Distribution Program, that I do hear complaints about the quantities that they get. They get them at the wrong time, they get them in disproportionate amounts, they don't get what they ordered. What have you done, Mr. Secretary, to try to somehow balance that?

Mr. BODE. Quite a number of things, Senator, and we would be delighted to provide a very detailed briefing, not only on operational changes, but also on operational changes that are being explored.

In essence, we are doing a better job of providing commodities in the form that is most useful to schools. We are going to improve our communications system, which is a part of the problem here, where sometimes schools don't know what options are available to them. That sort of change means they are better aware of what their options are, and can take better advantage of those.

Also, we can have from that a better knowledge of what they need and want, as well as, we are looking into changes in our delivery system; we will be conducting quite an elaborate effort, experiment if you will, on shipping for delivery instead of shipping period, so the school will have a better idea of when items will arrive.

Those are among the major things. George, would you like to add anything to that?

Mr. BRALEY. Only that in addition to the things from the national level that Mr. Bode mentioned, extensive work is being done getting the State people that run the program, and are a vital link in delivering services to school districts, together with the school districts and working out standards for them to operate their programs under.

I think again, as Mr. Bode said, we will be happy to provide detailed briefings for you and your staff on the things that we are doing.

Senator BOSCHWITZ. I tell you what we will do. We will write to 50 school districts about the bill, and we will ask them to comment, and we will let them know. Do you think the bill that has been introduced will be helpful?

Mr. BODE. I think it can be somewhat helpful, Senator. Much of the work is underway today, and I think on some initiative, some of the impetus in that work is drawn from the fact that the legislation is being considered, and there is congressional oversight. I think it is certainly not hurting.

Senator BOSCHWITZ. I am wondering if you could provide me with a briefing, rather than——

Mr. BODE. You bet.

[The above-mentioned briefing paper follows:]

USDA COMMODITY INITIATIVES FOR SCHOOL YEAR 1988

A. PUBLICATIONS AND COMMUNICATION

(1) Commodity Fact Sheets

- tips and recipes
- storage and handling information
- brief description of commodity

(2) Commodity Descriptions Instruction - FNS 716-1

- abbreviated specifications
- detailed information on pack size and ingredients
- requirements for processing

(3) Quantity Recipes For School Food Service

- increased commodity utilization

(4) Quarterly Newsletter

- communicate agricultural goals to schools
- share purchase information with schools
- explain Food Distribution Program (FDP) operations and objectives

(5) National USDA/State DA/ASFSA Representatives Meeting

- cross training on procurement procedures, state delivery systems and technical assistance
- information sharing: school food service needs, State distribution problems and commodity market limitations

(6) ASFSA Meetings With Tri-agency Attendance

- increase awareness of the relationship between the National School Lunch Program and the Food Distribution Program (FDP)
- communicate the concept of surplus removal and price support programs

(7) Systematic Use and Collection of Program Data

- State DA study
- School purchase study
- cash/CLOC study
- National council report analysis
- QNP study
- quarterly complaint reporting
- acceptability surveys
- shipment/delivery performance report
- formal vendor history file

(8) Increase Operational Consistency of FNS regional offices

- nationwide consistency regard the allocation and ordering of commodities

(9) Strengthen Existing Complaint System

- pursue problems with commodities and investigate causes
- improve follow-up procedures and commodity restoration policy
- improve the flow of information from schools to USDA and from USDA back to schools

(10) Formal Tri-agency Decision Making Process

- quarterly senior level meeting to coordinate commodity program issues
- Semi-annual Task Force reports to the Deputy Secretary

B. NEW PRODUCTS AND BETTER PRODUCT TARGETING

(1) Spiral (rotini) Macaroni

- expand variety of pasta products available for States to order

(2) Frozen Cooked Breaded Chicken

- popular with students
- labor saving

(3) Refried Beans

- to meet regional preferences
- labor saving
- increase demand for surplus dry beans

(4) Frozen Boneless Bulk Beef

- designed specifically for processing
- more flexibility to process into a wider variety of end products
- better quality end products

(5) Increased Purchases of Crushed Tomatoes

- preferred over whole tomatoes
- labor saving
- cost saving, more servings per can

(6) Elimination of Crushed Pineapple

- direct surplus removal purchases of pineapple to more desired styles (i.e. chunks, tidbits and slices)

(7) Increased Purchases of Fish Products: Frozen Nuggets, Portions and Tuna

- popular with students
- increases variety of protein items donated
- easy portion controlled servings for food services

(8) Explore Offering More Processed Products Through Joint FNS/AMS Funding or AMS/State Funding

- increase the variety of finished end-products provided

C. PRODUCT S ECIFICATION IMPROVEMENT AND CORRECTIVE ACTIONS

(1) Require a spreadability test for peanut butter

- increased quality consistency

(2) Require meltability test for all USDA process cheese

- eliminates product which may not melt well

(3) Tighter specifications for frozen ground beef (with respect to bone chips and connective tissue, and increase inspection requirements)

- improved product with less defects

(4) Review current specifications and establish lowest possible fat, salt and/or sugar levels while maintaining acceptability and functionality

- provide nutritious acceptable foods to students
- procure foods consistent with dietary guidelines

(5) Purchase refried beans processed only with low saturated fat oils (instead of lard or palm oil)

(6) For SY-88 purchases consider reduction of salt in turkey roasts and fish nugget breading

(7) Investigate reported problems with specifications and implement changes where warranted

(8) Review and improve procedures for developing and testing specifications

D. PACK SIZE IMPROVEMENTS AND BETTER PACKAGING

(1) Standard pack size for butter 36/1-pound prints to a case

- eliminates multiple case sizes
- easy butter inventory management
- allows for standard allocation of butter to schools

(2) Flour in 25-pound bags now available for States to order

- existing pack sizes were not appropriate for certain food services
- 25-pound bags easier to handle and store
- reduce infestation problems

(3) Evaluate bundling or shrink wrapping 2/25-pound bags of flour for delivery purposes

- reduced distribution cost by reducing number of containers to handle
- reduced damage in transit

(4) Label type of flour (i.e. whole wheat, bread, etc.) on side panel of bulk bags

- for easy product identification at warehouses
- ensures distribution of correct product

(5) Standard mozzarella packaging

- consistent smaller pack size appropriate for food service operations
- provide large bulk pack to processors only

(6) Improved rice bag packaging

- prevent seals from ripping
- improved storage and handling
- reduced infestation

(7) A. Ground beef case reduced from 55-pounds to 36-pounds

- food service ease in handling
- less waste
- smaller even-weight interior packages
- more consistency in interior packages

B. Exterior case labeling identifying hand-packed versus machine-packed beef and the number of interior packages

(8) Bulk beef products for processing in larger cases with less interior packages

- less handling
- lower processing costs

(9) Frozen vegetables available in bulk tote bins

- pack size appropriate for processing and large central kitchens

E. DELIVERY SYSTEM AND OPERATIONAL IMPROVEMENTS

(1) State performance standards for the distribution and allocation of commodities and FDP administration and communication

- improved levels of service
- consistent program administration nationwide

(2) Design and implement Tri-agency computer system

- faster processing of program data
- improved reporting of purchase and distribution information
- wider access to shipment/delivery status data
- increased monitoring of program operations

(3) Test purchase of a variety of commodities for delivery periods versus shipping periods, failure to deliver product (vs ship) product on time would result in the assessment of liquidated damages against the vendor

- contractually requires vendors to deliver product to destinations with in a specific timeframe
- increased predictability of commodity deliveries

(4) Increase liquidated damages assessed against AMS vendors for late shipment/ delivery of commodities from 10 cents per hundred weight per day to 15 cents per hundred weight per day - e.g., late shipment/delivery of one purchase unit weighing about 40,000 would result in a charge of $60 per day

- additional incentive for vendor to consistently meet contractual obligations

(5) Require fish, meat and poultry vendors to certify timely contract performance prior to the submission of bids for continuous purchase programs

- not permit vendors with outstanding shipments to participate in procurement programs
- additional incentive for vendors to consistently meet contractual obligations

(6) AMS graders' reporting of shipment status to contracting officers

- earlier detection of shipping problems

(7) Notification to vendors and truckers regarding obligations for timely shipments and proper shipment notification

- increase vendors and shipper awareness of responsibilities

(8) Earlier purchases of commodities and curtail purchases for shipment late in the school year

- schools will have commodities on hand in September
- avoid the need to store commodities over the summer

(9) Prompt reprocurement in contract default situations

- reduces the inconvenience caused to schools when a vendor defaults on a contract
- ensures more timely provision of commodities to schools

(10) Formal vendor history files

- stricter enforcement and monitoring of vendor compliance and performance

Senator BOSCHWITZ. That way, if I get a chance, I will read it.

I wonder, Mr. Chairman, if we could—is it possible to see that presentation by WRC, or are you committed to going in the order——

Senator HARKIN. What is your schedule?

Senator BOSCHWITZ. The Foreign Relations Committee is debating the ABM treaty.

Senator HARKIN. Can you stay awhile?

Senator BOSCHWITZ. Well, I could stay and watch that and listen to her; and I've listened to the debate a little bit.

Senator HARKIN. I think it is in the interest of the subcommittee that we do that. You say you have a few minutes to stay?

Senator BOSCHWITZ. Yes.

Senator HARKIN. Then we will ask the other three witnesses, Mr. Barr, Ms. Watkins, and Ms. Klatko if you would stand by and let us call Lea Thompson, anchor and consumer investigative reporter for WRC–TV News, to come to the table.

STATEMENT OF LEA THOMPSON, ANCHOR REPORTER, WRC-TV NEWS, ACCOMPANIED BY BONNIE LIEBMAN, CENTER FOR SCIENCE IN THE PUBLIC INTEREST; ELIZABETH CRENSHAW, PRODUCER, WRC-TV NEWS; SHEILA DUFFY, CHIEF RESEARCHER, WRC-TV NEWS; AND BRET MARCUS, NEWS DIRECTOR, WRC-TV NEWS

Ms. THOMPSON. Senator, we have a short prepared statement that we brought this morning.

Senator HARKIN. Welcome to the subcommittee. It will be made a part of the record in its entirety, and I think we should make the transcript part of the record, also.

You may proceed as you desire. You might introduce the people who are with you today.

Ms. THOMPSON. I will indeed. Let me say first of all that it is a pleasure to be here today. I appreciate your asking us to present the findings of our investigation of the nutritional content of school lunches.

We feel that the D.C. Metropolitan area is fairly indicative of the School Lunch Programs nationwide. We did test food in two different States, and also a major metropolitan city.

I would like to submit for the record, if I may, the official test results from the laboratory in Lancaster, PA; charts that highlight those findings, and transcripts of our five-part series.

Our series came about after we got complaints from teachers, from parents and kids about the school lunch food. When we started looking into it, we realized that 60 to 70 percent of the food served in elementary school cafeterias looked like fast food. Knowing that fast food is very high in sodium and fat, we decided to have school food tested.

We really had no idea what the results would be, and I must tell you honestly that I was as shocked as everyone else to find that school food in many cases that we tested was higher in fat and sodium than if you just send your child to McDonald's or Hardee's or Burger King or Domino's for lunch.

Before I show you a synopsis of our findings on tape, I would like to introduce the consumer investigative staff, the partners that worked on these reports from WRC–TV here in Washington. Sitting next to me is our nutritionist for this story, Bonnie Liebman, from the Center for Science in the Public Interest. She served as our expert on this series.

I do want to introduce you to my producer, Elizabeth Crenshaw, who has worked with me for 5 years. Our chief researcher is Sheila Duffy, sitting next to Elizabeth. They both, by the way, are former Hill staffers.

Our news director, Bret Marcus, who of course gave us the time and the resources to do this story.

Also with me today is our tape editor, Craig Wonderlich, our cameraman, John Wanzer, and soundman, Eddie Prince.

What I would like to do now is just roll the tape.

Senator HARKIN. How long is the tape?

Ms. THOMPSON. It's a little more than 10 minutes.

Senator BOSCHWITZ. And it is the whole thing?

Ms. THOMPSON. No, sir. It is a synopsis. It is pretty complete, though. I think you can certainly get a good idea of our story. The original probably was about 25 minutes.

Senator HARKIN. I have time for it; I do not know what is happening with the votes. Do you have time for this Senator Boschwitz?

Senator BOSCHWITZ. Yes.

Senator HARKIN. OK.

[Videotape being shown on monitor in the hearing room.]

Ms. THOMPSON. I want to point out, if I may, that we are not scientists, nor are we nutritionists, nor are we doctors. We, of course, are journalists. I can tell you that we spent months researching this story, but, I can also tell you that the testing was very easy to do.

Nobody, to our knowledge, has ever done a complete nutritional breakdown, an independent complete nutritional test, on school food. And, while food service directors did not particularly like us washing their laundry in public, they do tell us that they had no way of knowing what was in their food. Testing for them, they say, is just too expensive and our testing indicates to them that they can't depend on the suppliers to give them adequate information.

School food service directors must look to the Federal Government for guidance, and for testing. Right now, in their opinion, it just isn't there. I must tell you that having talked to every school food service director in the Metropolitan Washington area, and having talked to a number of people at the USDA, I am not convinced personally that there is a tremendous amount of priority being put on sodium and fat on the diet of kids in school.

But I can tell you this: I know the American people care about it. The feedback on our series has been, I think I can say, phenomenal. We have heard from parents who are very concerned; kids are asking for meetings and school health workers are demanding action. I recognize that it is a very tricky combination, finding food that is good for kids, that will also be food that they will eat, but if one county can make or buy a better pizza, why can't they all?

If the USDA could be required to have less fat in its beef and cheese then every school child in the country, indeed, every person eating commodity food in the country, I think we would be better off.

The School Lunch Program is both a farm program and a feeding program. And they are not always going in the same direction. Obviously, it appears to us what has been done in the past is not working; but I believe that with the testing and the monitoring and with better guidelines, very specific legislative guidelines, they can both work together serving both the farmer and a more healthful diet. And please do not let anybody tell you that the science is not there to set those guidelines.

There are, of course, the RDA's and there are also now widely recognized levels of sodium and fat——

Senator BOSCHWITZ. The RDA?

Ms. THOMPSON. I'm sorry. RDA is this book, the "U.S. Recommended Dietary Allowances," which sets out very specific guidelines for minerals and vitamins; but there are also recognized levels for sodium and fat. I bring to your attention the 1980 American Heart and NIH Consensus Panel, and the 1982 Diet, Nutrition and Cancer Committee of the National Research Council. Their figures for children have been adopted by the American Cancer Society and the National Cancer Institute, and those levels are set at 30 percent of energy (calories) as fat.

In closing, obviously millions of children and seniors and hungry people really depend on these programs. Legislation is the basis on which they were formed, and I think that legislation is what is needed now. But it must be done without special interests and without politics. I don't think I need to remind anybody in this room that everybody's kids go to school and everybody's kids eat school lunches.

Good nutritional guidelines will give every child in America a head start on good health for the rest of their lives.

I am much better at asking questions than answering them, but I certainly am here to answer any questions that I can.

[The prepared statement of Ms. Thompson and the material submitted for the record follows:]

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WRC-TV
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TESTIMONY OF LEA THOMPSON
WRC-TV NEWS, WASHINGTON, D.C.
ANCHOR, CONSUMER/INVESTIGATIVE REPORTER
BEFORE THE
SENATE AGRICULTURE COMMITTEE,
SUBCOMMITTEE ON NUTRITION AND INVESTIGATIONS
CHAIRMAN, SENATOR TOM HARKIN (D-IOWA)
TUESDAY, MAY 19, 1987
332 RUSSELL SENATE OFFICE BUILDING

MR. CHAIRMAN IT IS A PLEASURE TO BE HERE TODAY.

I APPRECIATE YOUR ASKING US TO PRESENT THE FINDINGS OF OUR INVESTIGATION OF THE NUTRITIONAL CONTENT OF SCHOOL LUNCHES. WE FEEL THE D.C. METROPOLITAN AREA IS FAIRLY INDICATIVE OF SCHOOL LUNCH PROGRAMS NATIONWIDE. WE DID TEST FOOD IN TWO DIFFERENT STATES AND A MAJOR METROPOLITAN CITY.

MR. CHAIRMAN I'D LIKE TO SUBMIT FOR THE RECORD THE OFFICIAL TEST RESULTS FROM THE LABORATORY, CHARTS THAT HIGHLIGHT THOSE FINDINGS AND TRANSCRIPTS OF OUR FIVE PART SERIES.

OUR SERIES CAME ABOUT AFTER WE GOT COMPLAINTS FROM TEACHERS, PARENTS AND KIDS ABOUT SCHOOL LUNCH FOOD. WHEN WE STARTED LOOKING INTO IT WE REALIZED THAT 60 TO 70 PERCENT OF THE FOOD SERVED IN ELEMENTARY SCHOOL CAFETERIAS LOOKED LIKE FAST FOOD. KNOWING THAT FAST FOOD IS VERY HIGH IN FAT AND SODIUM WE DECIDED TO HAVE SCHOOL FOOD TESTED. WE HAD NO IDEA WHAT THE RESULTS WOULD BE. I WAS AS SHOCKED AS EVERYONE ELSE TO FIND THAT THE SCHOOL FOOD, IN MANY CASES, WAS HIGHER IN FAT AND SODIUM THAN IF YOU JUST SENT YOUR CHILD TO MCDONALDS, HARDEES, BURGER KING OR DOMINIOS FOR LUNCH.

BEFORE I SHOW YOU A SYNOPSIS OF OUR FINDINGS ON TAPE I'D LIKE TO INTRODUCE THE CONSUMER/INVESTIGATIVE STAFF THAT WORKED ON THESE REPORTS FOR WRC-TV HERE IN WASHINGTON. SITTING BEHIND ME IS PRODUCER ELIZABETH CRENSHAW, OUR CHIEF RESEACHER SHEILA DUFFY, AND OUR NEWS DIRECTOR BRET MARCUS, THE MAN WHOSE COMMITTMENT ALLOWED US THE TIME AND RESOURCES TO DO THIS STORY. ALSO, WITH ME IS TAPE EDITOR CRAIG WUNDERLICH, OUR CAMERAMAN JOHN WANZER AND SOUNDMAN EDDIE PRINCE, AND OUR EXPERT FOR THIS STORY, NUTRITIONIST BONNIE LIEBMAN FROM THE CENTER FOR SCIENCE IN THE PUBLIC INTEREST.

SENATOR, YOU KNOW WHAT CONCERNS ME THE MOST WAS HOW EASY THIS STORY WAS TO DO. NO ONE, TO OUR KNOWLEDGE, HAS EVER DONE A COMPLETE NUTRITIONAL TEST ON SCHOOL FOOD. WHILE FOOD SERVICE DIRECTORS DID NOT LIKE OUR WASHING THEIR LAUNDRY IN PUBLIC, THEY TELL US THEY HAD NO WAY OF KNOWING WHAT WAS IN THEIR FOOD. TESTING FOR THEM IS TOO EXPENSIVE AND OUR TESTING INDICATES THEY CAN NOT ALWAYS DEPEND ON FIGURES GIVEN THEM BY PRIVATE SUPPLIERS. SCHOOL FOOD SERVICE DIRECTORS MUST LOOK TO THE FEDERAL GOVERNMENT FOR THE TESTING AND THOSE GUIDELINES AND RIGHT NOW THEY JUST AREN'T THERE.

I MUST TELL YOU THAT I AM NOT CONVINCED THAT THE U.S.D.A. OR ANYONE ELSE DOWN THE SCHOOL LUNCH LINE IS REALLY PLACING A HIGH ENOUGH PRIORITY ON SODIUM AND FAT IN OUR DIETS.

BUT I THINK THE AMERICAN PEOPLE CARE. THE FEEDBACK ON THIS SERIES HAS BEEN PHENOMENAL. PARENTS ARE CONCERNED, KIDS ARE DEMANDING MEETINGS, SCHOOL HEALTH WORKERS ARE DEMANDING ACTION.

IT'S A TRICKY COMBINATION, FINDING FOOD THAT IS GOOD FOR KIDS THAT THEY WILL ALSO EAT. BUT IF ONE COUNTY CAN MAKE A BETTER PIZZA, WHY CAN'T THEY ALL? AND IF U.S.D.A. REQUIRED LESS FAT IN ITS BEEF AND CHEESE, EVERY SCHOOL CHILD IN THE COUNTRY, EVERY PERSON EATING COMMODITY FOOD, WOULD BE BETTER OFF.

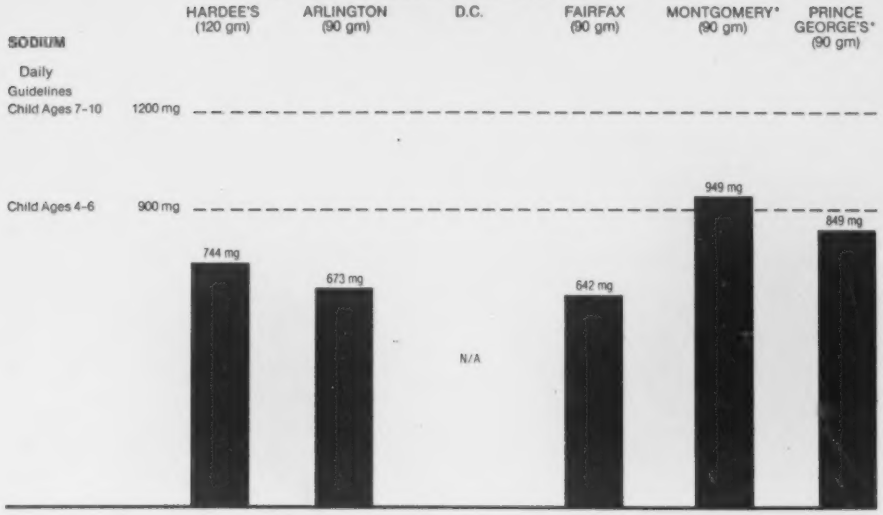
THE SCHOOL LUNCH PROGRAM IS BOTH A FARM PROGRAM AND A FEEDING PROGRAM. THEY ARE NOT ALWAYS GOING IN THE SAME DIRECTION. OBVIOUSLY, WHAT HAS BEEN DONE IN THE PAST IS NOT WORKING. BUT I BELIEVE WITH MORE TESTING AND MONITORING, AND WITH BETTER GUIDELINES - VERY SPECIFIC LEGISLATIVE GUIDELINES - THEY CAN BOTH WORK TOGETHER SERVING BOTH THE FARMER AND A MORE HEALTHFUL DIET.

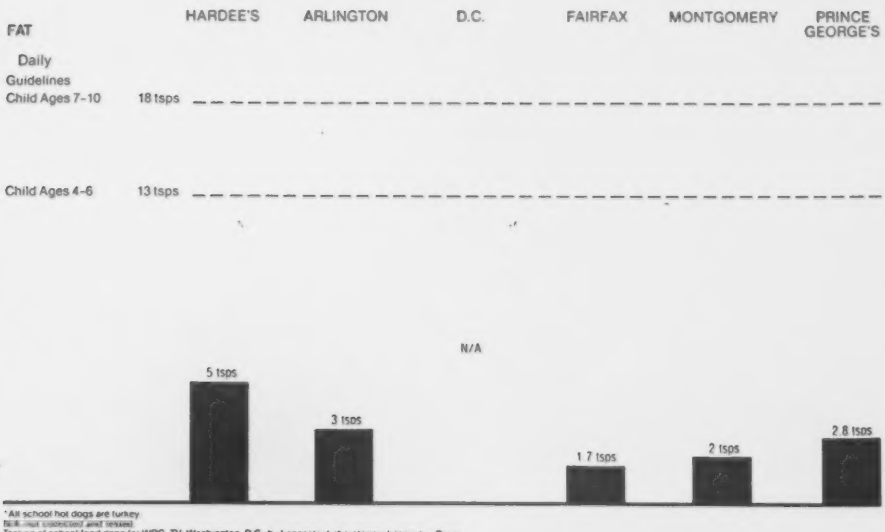
AND PLEASE DON'T LET ANYONE TELL YOU THAT THE SCIENCE IS NOT THERE TO SET THOSE GUIDELINES. THERE ARE OF COURSE THE RDA'S AND THERE ARE ALSO NOW WIDELY RECOGNIZED LEVELS FOR SODIUM AND FAT.

MILLIONS OF CHILDREN AND SENIORS AND HUNGRY PEOPLE DEPEND ON THESE PROGRAMS. LEGISLATION IS THE BASIS ON WHICH ALL THESE PROGRAMS ARE BASED. BUT IT MUST BE LEGISLATION WITHOUT SPECIAL INTERESTS, WITHOUT POLITICS...AFTER ALL NO MATTER WHAT YOUR STRIPE...EVERYONE'S CHILDREN MUST GO TO SCHOOL AND EAT SCHOOL FOOD. GOOD NUTRITIONAL GUIDELINES WILL ASSURE EVERY CHILD IN AMERICA A HEAD START ON GOOD HEALTH FOR THE REST OF THEIR LIVES.

HOT DOGS

SERVED IN SCHOOL LUNCH PROGRAMS IN THE METROPOLITAN WASHINGTON AREA

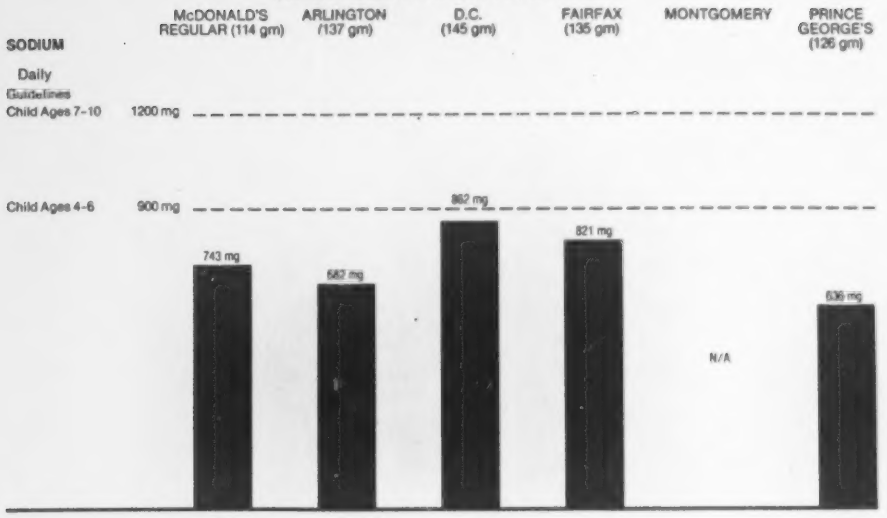


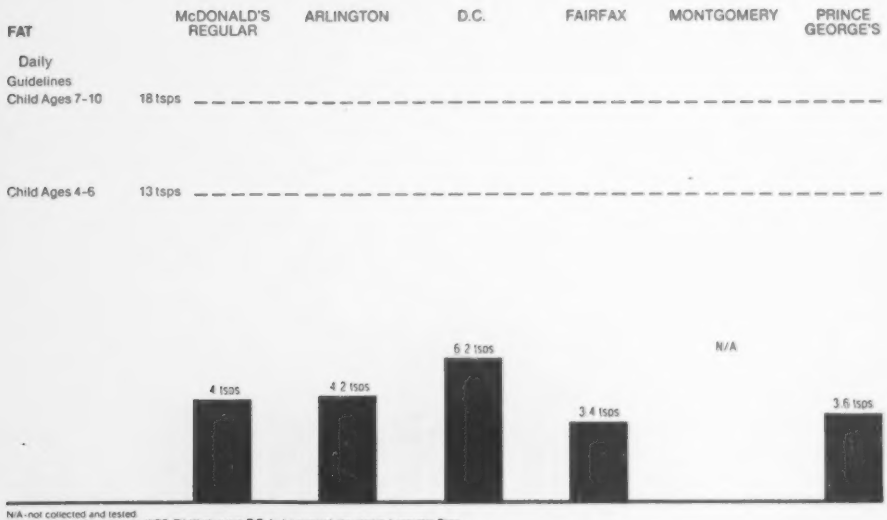


* All school hot dogs are turkey.
N/A - not collected and tested.
Testing of school food done for WRC-TV, Washington, D.C., by Lancaster Laboratories, Lancaster, Penn.
Fast food statistics published by the Center for Science in the Public Interest, Washington, D.C.
Nutritional guidelines recommended by the National Academy of Sciences.

CHEESEBURGER

SERVED IN SCHOOL LUNCH PROGRAMS IN THE METROPOLITAN WASHINGTON AREA





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Testing of school food done for WRC-TV, Washington, D.C., by Lancaster Laboratories, Lancaster, Penn.
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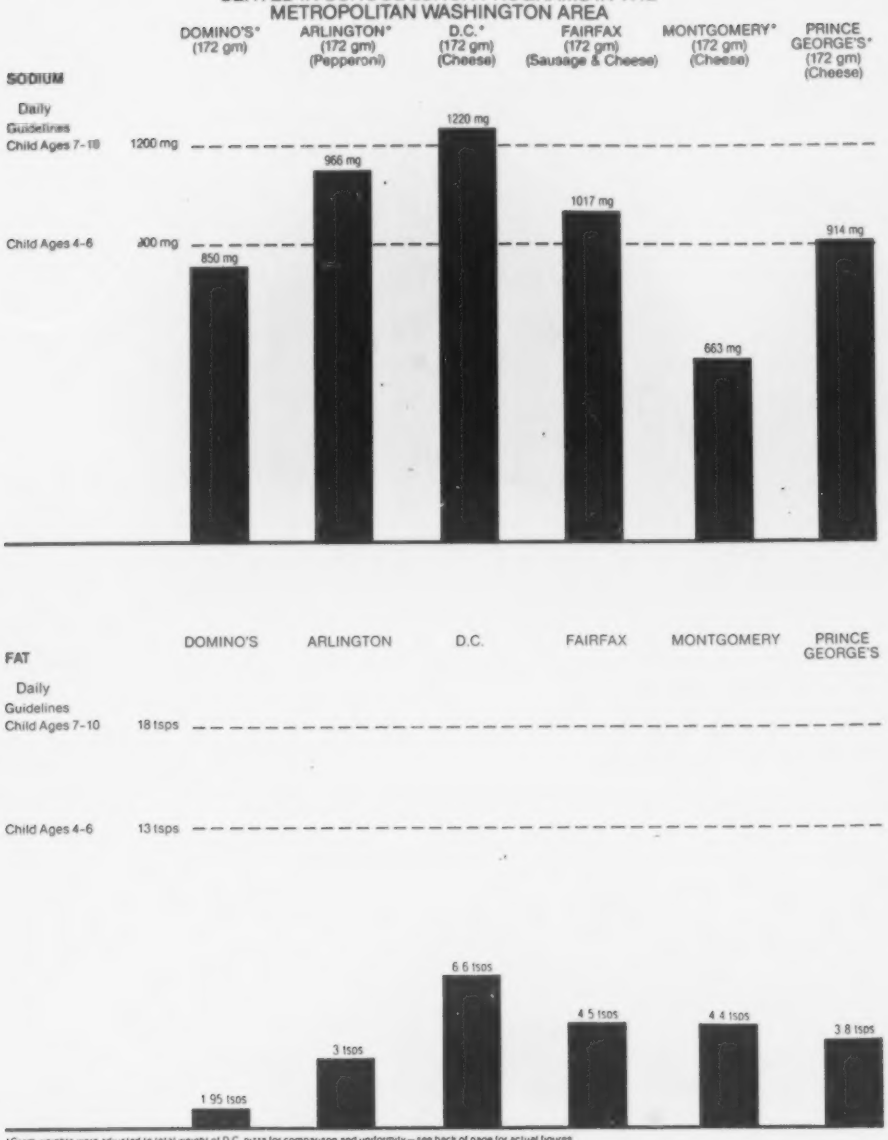
Nutritional guidelines recommended by the National Academy of Sciences.

PIZZA

SERVED IN SCHOOL LUNCH PROGRAMS IN THE METROPOLITAN WASHINGTON AREA

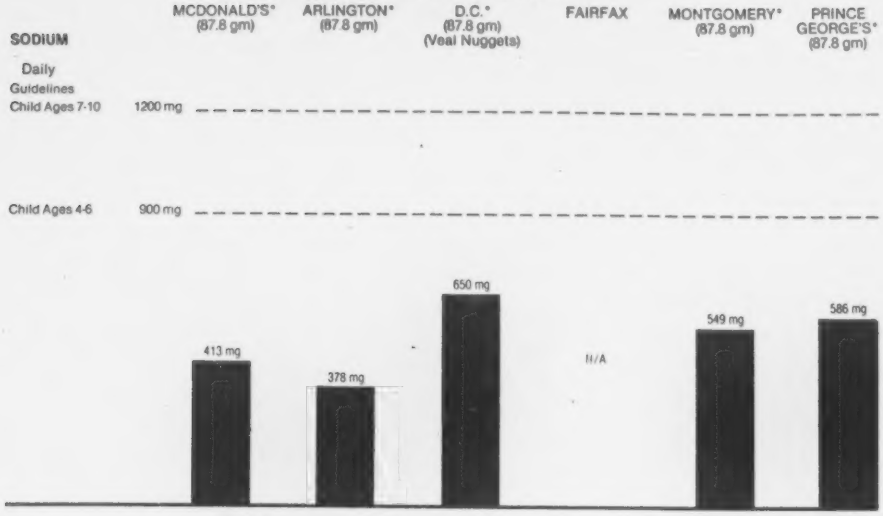


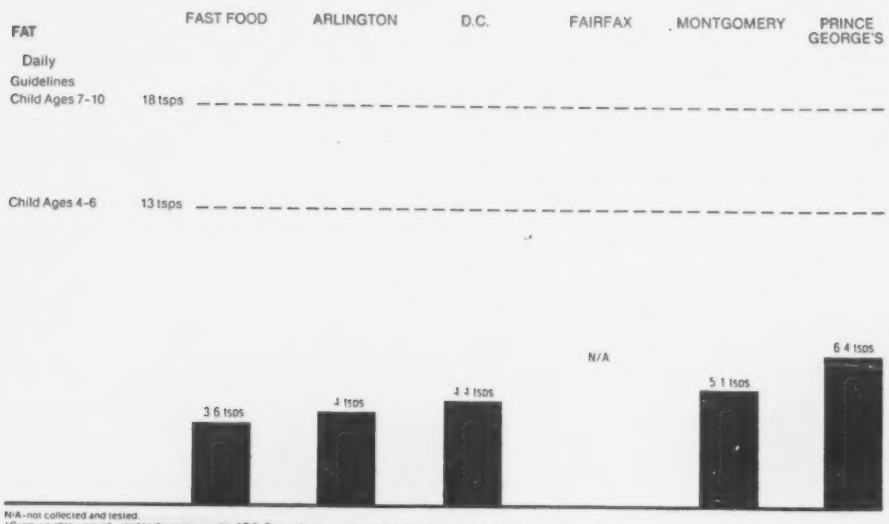
*Gram weights were adjusted to total weight of D.C. pizza for comparison and uniformity — see back of page for actual figures.
Testing of school food done for WRC-TV, Washington, D.C. by Lancaster Laboratories, Lancaster, Penn.
Fast food statistics published by the Center for Science in the Public Interest, Washington, D.C.
Nutritional guidelines recommended by the National Academy of Sciences.

ACTUAL FIGURES FOR:			SERVING SIZE	SODIUM	FAT
Arlington	—	(Pepperoni Pizza)	105 gm	590 mg	1.84 tsp.
D.C.	—	(Cheese Pizza)	172 gm	1220 mg	6.65 tsp.
Fairfax	—	(Sausage & Cheese Pizza)	125 gm	739 mg	3.27 tsp.
Montgomery	—	(Cheese Pizza)	130 gm	501 mg	3.38 tsp.
P.G.	—	(Cheese Pizza)	120 gm	638 mg	2.75 tsp.
Domino's	—	(Cheese Pizza)	80 gm (1 slice)	330 mg	.9 tsp.

CHICKEN NUGGETS

SERVED IN SCHOOL LUNCH PROGRAMS IN THE METROPOLITAN WASHINGTON AREA





N/A–not collected and tested.
*Gram weights were adjusted to the same weight of P.G. County for comparison and uniformity—see back of page for actual figures.
Testing of school food done for WRC-TV, Washington, D.C. by Lancaster Laboratories, Lancaster, Penn.
Fast food statistics published by the Center for Science in the Public Interest, Washington, D.C.
Nutritional guidelines recommended by the National Academy of Sciences.

ACTUAL FIGURES FOR:			SERVING SIZE	SODIUM	FAT
Arlington	—	(Chicken)	82.4 gm	355 mg	3.86 tsp.
D.C.	—	(Veal)	80.8 gm	598 mg	4.06 tsp.
Fairfax	—	(N/A)			
Montgomery	—	(Chicken)	60.8 gm	380 mg	3.56 tsp.
P.G.	—	(Chicken)	87.8 gm	586 mg	6.36 tsp.
McDonald's	—	(Chicken)	109 gm	512 mg	5 tsp.

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data.

1. < means "less than". The number following the sign is the smallest amount which can be detected using this specific test.
2. > means "greater than".
3. N.D. means "none detected".
4. TNTC means "Too Numerous To Count".
5. MPN means "Most Probable Number". Used in reporting certain bacteriological results which are calculated from a statistical formula related to the bacterial count observed in a series of dilutions of the sample.
6. IU means "International Units". Used in reporting results on certain Vitamin assays.
7. CP Units means "cobalt-chloroplatinate units". Used in reporting color of aqueous solutions.
8. umhos/cm means "micromhos/cm". Used in reporting specific conductance of solutions.
9. NTU means "nephelometric turbidity units".
10. fib ≥ 5 um/ml means "fibers greater than 5 microns in length, per ml".
11. C and F represent degrees of temperature and refer to Celsius and Fahrenheit respectively.
12. Cal means (diet) calories.
13. therms/cwt. - therms per hundred weight, a unit for expressing the energy content of forage.
14. lb. means pound(s).
15. meq means milliequivalents, a chemical term meaning 1/1000 of the equivalent weight of a substance or element.
16. g means "gram(s)". The unit of weight used in the metric system: One gram equals about 1/30th of an ounce.
17. mg means "milligram(s)". One milligram is 1/1000 of a gram.
18. ug means "microgram(s)". One-millionth of a gram. The symbol "u" stands for the Greek letter "mu".
19. kg means "kilogram(s)". One kilogram is 1000 grams.
20. l means "liter(s)". The unit of volume used in the metric system.
21. ml means "milliliter(s)". One milliliter is 1/1000 of a liter.
22. ul means "microliter(s)". One microliter is 1/1000 of a milliliter or one millionth of a liter.
23. m3 means "cubic meter(s)". Usually used as a volume unit in air analyses.
24. ppm means "parts per million". One ppm is equivalent to one microgram per gram, or one gram per million grams. For aqueous liquids ppm is usually taken to be equivalent to milligrams per liter, because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.
25. ppb means "parts per billion". One ppb is 1/1000 of a ppm.
26. % means percent or part per hundred. This is usually followed by the designation "by weight" meaning grams per hundred grams. If followed by the designation "by volume" it refers to volume per unit volume, e.g., milliliters per hundred milliliters.
27. Ash. The percent ash reported on a sample refers to the percentage of the original material remaining after the ashing procedure. This is indicative of the inorganic or non-combustible material present in the sample.

* * * * * *

Clients should be aware that a most important step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
(717) 656-2301

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Chicken Nuggets School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	45.3	% by wt.	0.01	010100800P
Protein (N x 6.25)	17.2	% by wt.	0.1	010401600P
Fat (Ether Extract)	20.7	% by wt.	0.1	010901300P
Fiber	0.2	% by wt.	0.1	011001700P
Ash	1.85	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	14.8	% by wt.	0.1	011500000P
Est. Caloric Value	314.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.058	% by wt.	0.006	019609000P
Sodium	4,300.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	430.	mg/100g	0.005	044000000P
Sodium	122.	mg/ oz.	0.001	044100000P
Saturated Fats	5.0	% by wt.		900100000P
Unsaturated Fats	15.7	% by wt.		900200000P

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Lancaster Laboratories, Inc.
Revieved and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
(717) 656-2301

Channel 4 News - WRC TV
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Washington, DC 20016

Chicken Nuggets School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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P.O.
Rel.

Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	< 0.1	%	0.1	057900000P
C12-0	< 0.1	%	0.1	058000000P
C14-0	0.6	%	0.1	058100000P
C16-0	15.4	%	0.1	058400000P
C16-1	2.6	%	0.1	058500000P
C18-0	6.3	%	0.1	058800000P
C18-1	43.9	%	0.1	058900000P
C18-2	28.6	%	0.1	059000000P
C18-3	2.0	%	0.1	059100000P
C20-0	0.2	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.3	%	0.1	059400000P
C22-0	0.2	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Lancaster Laboratories, Inc.
Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Lanc. Sample No. MC 1151866

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Chicken Nuggets School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	82.4	grams	0.1	079100000P
Protein	14.2	g/serving	0.1	079200000P
Fat	17.0	g/serving	0.1	079300000P
Carbohydrate	12.2	g/serving	0.1	079400000P
Calories	259.	Cal/serv.	0.1	079500000P
Cholesterol	47.8	mg/serv.	0.1	079600000P
Sodium	355.	mg/serv.	0.1	079700000P
Protein	21.8	% US RDA	0.1	079800000P

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Lancaster Laboratories, Inc.
Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
NEW HOLLAND PIKE, LANCASTER, PA 17601

LL# Sample No. MC 1151850

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Cheeseburger School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	48.6	% by wt.	0.01	010100800P
Protein (N x 6.25)	16.8	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	13.6	% by wt.	0.1	010802500P
Fiber	0.3	% by wt.	0.1	011001700P
Ash	2.19	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	18.5	% by wt.	0.1	011500000P
Est. Caloric Value	264.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.045	% by wt.	0.006	019609000P
Sodium	4,970.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	497.	mg/100g	0.005	044000000P
Sodium	141.	mg/ oz.	0.001	044100000P
Saturated Fats	6.3	% by wt.		900100000P
Unsaturated Fats	7.3	% by wt.		900200000P

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Washington, DC 20016

Cheeseburger School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	0.6	%	0.1	057900000P
C12-0	0.9	%	0.1	058000000P
C14-0	4.6	%	0.1	058100000P
C16-0	26.1	%	0.1	058400000P
C16-1	4.5	%	0.1	058500000P
C18-0	14.0	%	0.1	058800000P
C18-1	38.5	%	0.1	058900000P
C18-2	8.3	%	0.1	059000000P
C18-3	1.8	%	0.1	059100000P
C20-0	0.2	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.2	%	0.1	059400000P
C22-0	0.2	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Lancaster Laboratories, Inc.
Revieved and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories
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2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Lan. Sample No.: JC 4518-0

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Cheeseburger School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	137.	grams	0.1	079100000P
Protein	23.1	g/serving	0.1	079200000P
Fat	18.7	g/serving	0.1	079300000P
Carbohydrate	25.4	g/serving	0.1	079400000P
Calories	362.	Cal/serv.	0.1	079500000P
Cholesterol	61.8	mg/serv.	0.1	079600000P
Sodium	682.	mg/serv.	0.1	079700000P
Protein	35.5	% US RDA	0.1	079800000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

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2425 NEW HOLLAND PIKE, LANCASTER, PA 17601 (717) 656-2006

Lab Sample No. MC 1151865

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4001 Nebraska Avenue, NW
Washington, DC 20016

Beef Taco School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	51.3	% by wt.	0.01	010100800P
Protein (N x 6.25)	19.9	% by wt.	0.1	010401600P
Fat (Ether Extract)	14.4	% by wt.	0.1	010901300P
Fiber	0.6	% by wt.	0.1	011001700P
Ash	2.03	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	11.8	% by wt.	0.1	011500000P
Est. Caloric Value	256.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.055	% by wt.	0.006	019609000P
Sodium	3,970.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	397.	mg/100g	0.005	044000000P
Sodium	112.	mg/ oz.	0.001	044100000P
Saturated Fats	5.8	% by wt.		900100000P
Unsaturated Fats	8.6	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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Lancaster Laboratories

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2120 NEW HOLLAND PIKE, LANCASTER, PA 17601

LLI Sample No. MC 1151865

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Beef Taco School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	0.2	%	0.1	057800000P
C10-0	0.4	%	0.1	057900000P
C12-0	0.6	%	0.1	058000000P
C14-0	3.4	%	0.1	058100000P
C16-0	21.9	%	0.1	058400000P
C16-1	3.3	%	0.1	058500000P
C18-0	12.8	%	0.1	058800000P
C18-1	48.9	%	0.1	058900000P
C18-2	6.4	%	0.1	059000000P
C18-3	1.2	%	0.1	059100000P
C20-0	0.4	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.2	%	0.1	059400000P
C22-0	0.3	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Lancaster Laboratories, Inc.
Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories

LLI Sample No. MC 1151865

Channel 4 News - WRC TV
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Washington, DC 20016

Beef Taco School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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P.O.
Rel.

Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	76.4	grams	0.1	079100000P
Protein	15.2	g/serving	0.1	079200000P
Fat	11.0	g/serving	0.1	079300000P
Carbohydrate	9.0	g/serving	0.1	079400000P
Calories	196.	Cal/serv.	0.1	079500000P
Cholesterol	42.0	mg/serv.	0.1	079600000P
Sodium	303.	mg/serv.	0.1	079700000P
Protein	23.4	% US RDA	0.1	079800000P

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Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
717-656-2301

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Pepperoni Pizza School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	52.9	% by wt.	0.01	010100800P
Protein (N x 6.25)	15.0	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	7.7	% by wt.	0.1	010802500P
Fiber	0.4	% by wt.	0.1	011001700P
Ash	2.70	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	21.3	% by wt.	0.1	011500000P
Est. Caloric Value	215.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.023	% by wt.	0.006	019609000P
Sodium	5,640.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	564.	mg/100g	0.005	044000000P
Sodium	160.	mg/ oz.	0.001	044100000P
Saturated Fats	4.4	% by wt.		900100000P
Unsaturated Fats	3.3	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

LL Sample No. MC 1151852

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Pepperoni Pizza School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	0.8	%	0.1	057800000P
C10-0	2.2	%	0.1	057900000P
C12-0	2.8	%	0.1	058000000P
C14-0	9.0	%	0.1	058100000P
C16-0	30.0	%	0.1	058400000P
C16-1	2.8	%	0.1	058500000P
C18-0	11.6	%	0.1	058800000P
C18-1	30.4	%	0.1	058900000P
C18-2	0.4	%	0.1	059000000P
C18-3	1.7	%	0.1	059100000P
C20-0	0.3	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	< 0.1	%	0.1	059400000P
C22-0	< 0.1	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Lancaster Laboratories, Inc.
Revieved and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Pepperoni Pizza School #1

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	105.	grams	0.1	079100000P
Protein	15.7	g/serving	0.1	079200000P
Fat	8.1	g/serving	0.1	079300000P
Carbohydrate	22.3	g/serving	0.1	079400000P
Calories	225.	Cal/serv.	0.1	079500000P
Cholesterol	23.9	mg/serv.	0.1	079600000P
Sodium	590.	mg/serv.	0.1	079700000P
Protein	24.2	% US RDA	0.1	079800000P

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Lancaster Laboratories, Inc.
Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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ANALYSIS REPORT

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Sample No. WC 1151867

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Chili Macaroni Casserole School #2

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	74.9	% by wt.	0.01	010100800P
Protein (N x 6.25)	8.4	% by wt.	0.1	010401600P
Fat (Ether Extract)	4.2	% by wt.	0.1	010901300P
Fiber	0.7	% by wt.	0.1	011001700P
Ash	1.01	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	10.8	% by wt.	0.1	011500000P
Est. Caloric Value	115.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.022	% by wt.	0.006	019609000P
Sodium	1,930.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	193.	mg/100g	0.005	044000000P
Sodium	54.7	mg/ oz.	0.001	044100000P
Saturated Fats	1.8	% by wt.		900100000P
Unsaturated Fats	2.4	% by wt.		900200000P

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

LL Sample No. MC 1151867

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Chili Macaroni Casserole School #2

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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P.O.
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	< 0.1	%	0.1	057900000P
C12-0	< 0.1	%	0.1	058000000P
C14-0	2.8	%	0.1	058100000P
C16-0	25.5	%	0.1	058400000P
C16-1	5.7	%	0.1	058500000P
C18-0	15.0	%	0.1	058800000P
C18-1	42.7	%	0.1	058900000P
C18-2	5.9	%	0.1	059000000P
C18-3	1.6	%	0.1	059100000P
C20-0	0.2	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.4	%	0.1	059400000P
C22-0	0.1	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Revieved and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
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LLC Sample No.: C1151867

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Chili Macaroni Casserole School #2

Date Reported 4/22/87
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	157.	grams	0.1	079100000P
Protein	13.1	g/serving	0.1	079200000P
Fat	6.6	g/serving	0.1	079300000P
Carbohydrate	16.9	g/serving	0.1	079400000P
Calories	180.	Cal./serv.	0.1	079500000P
Cholesterol	34.0	mg/serv.	0.1	079600000P
Sodium	302.	mg/serv.	0.1	079700000P
Protein	20.2	% US RDA	0.1	079800000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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Cheeseburger School #2

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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	38.9	% by wt.	0.01	010100800P
Protein (N x 6.25)	20.5	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	18.9	% by wt.	0.1	010802500P
Fiber	0.2	% by wt.	0.1	011001700P
Ash	2.49	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	19.0	% by wt.	0.1	011500000P
Est. Caloric Value	328.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.075	% by wt.	0.006	019609000P
Sodium	5,940.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	594.	mg/100g	0.005	044000000P
Sodium	169.	mg/ oz.	0.001	044100000P
Saturated Fats	9.3	% by wt.		900100000P
Unsaturated Fats	9.6	% by wt.		900200000P

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Cheeseburger School #2

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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8:0	0.3	%	0.1	057800000P
C10:0	0.9	%	0.1	057900000P
C12:0	1.1	%	0.1	058000000P
C14:0	5.5	%	0.1	058100000P
C16:0	26.8	%	0.1	058400000P
C16:1	4.1	%	0.1	058500000P
C18:0	14.2	%	0.1	058800000P
C18:1	39.2	%	0.1	058900000P
C18:2	5.8	%	0.1	059000000P
C18:3	1.6	%	0.1	059100000P
C20:0	0.2	%	0.1	059200000P
C20:1	< 0.1	%	0.1	059300000P
C20:4	0.2	%	0.1	059400000P
C22:0	0.1	%	0.1	059600000P
C22:1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

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Cheeseburger School #2

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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	145.	grams	0.1	079100000P
Protein	29.7	g/serving	0.1	079200000P
Fat	27.4	g/serving	0.1	079300000P
Carbohydrate	27.6	g/serving	0.1	079400000P
Calories	476.	Cal/serv.	0.1	079500000P
Cholesterol	109.	mg/serv.	0.1	079600000P
Sodium	862.	mg/serv.	0.1	079700000P
Protein	45.7	% US RDA	0.1	079800000P

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Revieved and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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ANALYSIS REPORT

Lancaster Laboratories

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Lab Sample No. HC 1151868

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Veal Nuggets School #2

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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	43.7	% by wt.	0.01	010100800P
Protein (N x 6.25)	16.3	% by wt.	0.1	010401600P
Fat (Ether Extract)	22.1	% by wt.	0.1	010901300P
Fiber	0.5	% by wt.	0.1	011001700P
Ash	2.91	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	14.4	% by wt.	0.1	011500000P
Est. Caloric Value	322.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.070	% by wt.	0.006	019609000P
Sodium	7,400.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	740.	mg/100g	0.005	044000000P
Sodium	210.	mg/ oz.	0.001	044100000P
Saturated Fats	11.4	% by wt.		900100000P
Unsaturated Fats	10.7	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601 (717) 656-2301

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Veal Nuggets School #2

Date Reported 4/22/87
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8:0	0.6	%	0.1	057800000P
C10:0	1.5	%	0.1	057900000P
C12:0	1.8	%	0.1	058000000P
C14:0	7.2	%	0.1	058100000P
C16:0	27.0	%	0.1	058400000P
C16:1	3.9	%	0.1	058500000P
C18:0	13.2	%	0.1	058800000P
C18:1	33.5	%	0.1	058900000P
C18:2	8.2	%	0.1	059000000P
C18:3	2.6	%	0.1	059100000P
C20:0	0.4	%	0.1	059200000P
C20:1	< 0.1	%	0.1	059300000P
C20:4	< 0.1	%	0.1	059400000P
C22:0	< 0.1	%	0.1	059600000P
C22:1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Revieved and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

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Veal Nuggets School #2

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	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Nutritional Report				
Serving Size	80.8	grams	0.1	079100000P
Protein	13.2	g/serving	0.1	079200000P
Fat	17.9	g/serving	0.1	079300000P
Carbohydrate	11.6	g/serving	0.1	079400000P
Calories	260.	Cal/serv.	0.1	079500000P
Cholesterol	56.6	mg/serv.	0.1	079600000P
Sodium	598.	mg/serv.	0.1	079700000P
Protein	20.3	% US RDA	0.1	079800000P

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Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
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Lan. Sample No. MC 1151854

Channel 4 News - WRC TV
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Washington, DC 20016

Pizza School #2

Date Reported 4/22/87
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	43.6	% by wt.	0.01	010100800P
Protein (N x 6.25)	12.7	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	17.1	% by wt.	0.1	010802500P
Fiber	0.7	% by wt.	0.1	011001700P
Ash	2.90	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	23.1	% by wt.	0.1	011500000P
Est. Caloric Value	297.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.038	% by wt.	0.006	019609000P
Sodium	7,130.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	713.	mg/100g	0.005	044000000P
Sodium	202.	mg/ oz.	0.001	044100000P
Saturated Fats	8.8	% by wt.		900100000P
Unsaturated Fats	8.3	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
NEW HOLLAND PIKE, LANCASTER, PA 17601

LL Sample No. MC 1151854

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Pizza School #2

Date Reported 4/22/87
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	0.7	%	0.1	057800000P
C10-0	1.7	%	0.1	057900000P
C12-0	2.0	%	0.1	058000000P
C14-0	7.4	%	0.1	058100000P
C16-0	27.8	%	0.1	058400000P
C16-1	2.7	%	0.1	058500000P
C18-0	11.5	%	0.1	058800000P
C18-1	30.1	%	0.1	058900000P
C18-2	13.0	%	0.1	059000000P
C18-3	2.4	%	0.1	059100000P
C20-0	0.3	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.2	%	0.1	059400000P
C22-0	0.2	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

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Pizza School #2

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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	172.	grams	0.1	079100000P
Protein	21.8	g/serving	0.1	079200000P
Fat	29.3	g/serving	0.1	079300000P
Carbohydrate	39.6	g/serving	0.1	079400000P
Calories	510.	Cal/serv.	0.1	079500000P
Cholesterol	64.7	mg/serv.	0.1	079600000P
Sodium	1,220.	mg/serv.	0.1	079700000P
Protein	33.5	% US RDA	0.1	079800000P

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Group Leader, Food Chemistry

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Lancaster Sample No. JC 018878

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Washington, DC 20016

Pizza School #3

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Discard Date 5/23/87
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	42.9	% by wt.	0.01	010100800P
Protein (N x 6.25)	14.7	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	11.5	% by wt.	0.1	010802500P
Fiber	0.5	% by wt.	0.1	011001700P
Ash	2.32	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	28.1	% by wt.	0.1	011500000P
Est. Caloric Value	275.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.028	% by wt.	0.006	019609000P
Sodium	3,860.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	386.	mg/100g	0.005	044000000P
Sodium	109.	mg/ oz.	0.001	044100000P
Saturated Fats	6.6	% by wt.		900100000P
Unsaturated Fats	4.9	% by wt.		900200000P

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Pizza School #3

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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	1.0	%	0.1	057800000P
C10-0	2.4	%	0.1	057900000P
C12-0	3.0	%	0.1	058000000P
C14-0	9.8	%	0.1	058100000P
C16-0	29.5	%	0.1	058400000P
C16-1	2.9	%	0.1	058500000P
C18-0	10.8	%	0.1	058800000P
C18-1	26.6	%	0.1	058900000P
C18-2	11.1	%	0.1	059000000P
C18-3	2.2	%	0.1	059100000P
C20-0	0.3	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.2	%	0.1	059400000P
C22-0	0.2	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Gloria Gates, B.S.
Chemist I

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Lab Sample No. 101-21857

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Pizza School #3

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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	130.	grams	0.1	079100000P
Protein	19.1	g/serving	0.1	079200000P
Fat	14.9	g/serving	0.1	079300000P
Carbohydrate	36.6	g/serving	0.1	079400000P
Calories	357.	Cal/serv.	0.1	079500000P
Cholesterol	35.8	mg/serv.	0.1	079600000P
Sodium	501.	mg/serv.	0.1	079700000P
Protein	29.4	% US RDA	0.1	079800000P

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Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
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Hamburger without Rolls School #3

Date Reported 4/22/87
Date Submitted 4/ 9/87
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Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	46.6	% by wt.	0.01	010100800P
Protein (N x 6.25)	20.1	% by wt.	0.1	010401600P
Fat (Ether Extract)	28.8	% by wt.	0.1	010901300P
Fiber	1.5	% by wt.	0.1	011001700P
Ash	2.48	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	0.6	% by wt.	0.1	011500000P
Est. Caloric Value	342.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.074	% by wt.	0.006	019609000P
Sodium	5,080.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	508.	mg/100g	0.005	044000000P
Sodium	144.	mg/ oz.	0.001	044100000P
Saturated Fats	13.1	% by wt.		900100000P
Unsaturated Fats	15.7	% by wt.		900200000P

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601 (717) 656-2301

LL Sample No. HC 1151871

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Hamburger without Rolls School #3

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	< 0.1	%	0.1	057900000P
C12-0	< 0.1	%	0.1	058000000P
C14-0	0.5	%	0.1	058100000P
C16-0	17.1	%	0.1	058400000P
C16-1	4.0	%	0.1	058500000P
C18-0	5.4	%	0.1	058800000P
C18-1	35.5	%	0.1	058900000P
C18-2	32.7	%	0.1	059000000P
C18-3	3.9	%	0.1	059100000P
C20-0	0.4	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.2	%	0.1	059400000P
C22-0	0.3	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Medical & Biological Fields of Testing

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

LLI Sample No. MC 1151871

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Hamburger without Rolls School #3

Date Reported 4/22/87
Date Submitted 4/ 9/87
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	47.7	grams	0.1	079100000P
Protein	9.6	g/serving	0.1	079200000P
Fat	13.7	g/serving	0.1	079300000P
Carbohydrate	0.3	g/serving	0.1	079400000P
Calories	163.	Cal/serv.	0.1	079500000P
Cholesterol	35.3	mg/serv.	0.1	079600000P
Sodium	242.	mg/serv.	0.1	079700000P
Protein	14.7	% US RDA	0.1	079800000P

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Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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ANALYSIS REPORT

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Lab Sample No. MC 151856

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Hot Dogs School #3

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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	43.8	% by wt.	0.01	010100800P
Protein (N x 6.25)	12.9	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	10.7	% by wt.	0.1	010802500P
Fiber	0.7	% by wt.	0.1	011001700P
Ash	3.24	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	28.7	% by wt.	0.1	011500000P
Est. Caloric Value	263.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.077	% by wt.	0.006	019609000P
Sodium	10,700.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	1,070.	mg/100g	0.005	044000000P
Sodium	303.	mg/ oz.	0.001	044100000P
Saturated Fats	3.0	% by wt.		900100000P
Unsaturated Fats	7.7	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	< 0.1	%	0.1	057900000P
C12-0	< 0.1	%	0.1	058000000P
C14-0	0.8	%	0.1	058100000P
C16-0	20.9	%	0.1	058400000P
C16-1	6.8	%	0.1	058500000P
C18-0	5.8	%	0.1	058800000P
C18-1	38.9	%	0.1	058900000P
C18-2	22.8	%	0.1	059000000P
C18-3	2.6	%	0.1	059100000P
C20-0	0.4	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.8	%	0.1	059400000P
C22-0	0.2	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories

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Lancaster Sample No. C9151856

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4001 Nebraska Avenue, NW
Washington, DC 20016

Hot Dogs School #3

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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P.O.
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	88.7	grams	0.1	079100000P
Protein	11.5	g/serving	0.1	079200000P
Fat	9.5	g/serving	0.1	079300000P
Carbohydrate	25.5	g/serving	0.1	079400000P
Calories	233.	Cal/serv.	0.1	079500000P
Cholesterol	72.8	mg/serv.	0.1	079600000P
Sodium	949.	mg/serv.	0.1	079700000P
Protein	17.7	% US RDA	0.1	079800000P

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Lancaster Laboratories, Inc.
Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
P.O. BOX 3425 NEW HOLLAND PIKE, LANCASTER, PA 17601 — LL Sample No. MC 1151869

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Chicken Nuggets School #3

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	36.1	% by wt.	0.01	010100800P
Protein (N x 6.25)	19.6	% by wt.	0.1	010401600P
Fat (Ether Extract)	25.9	% by wt.	0.1	010901300P
Fiber	< 0.1	% by wt.	0.1	011001700P
Ash	2.43	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	15.9	% by wt.	0.1	011500000P
Est. Caloric Value	375.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.077	% by wt.	0.006	019609000P
Sodium	6,260.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	626.	mg/100g	0.005	044000000P
Sodium	178.	mg/ oz.	0.001	044100000P
Saturated Fats	6.2	% by wt.		900100000P
Unsaturated Fats	19.7	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

ANALYSIS REPORT

LL Sample No. HC 3151869

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Washington, DC 20016

Chicken Nuggets School #3

Date Reported 4/22/87
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8:0	< 0.1	%	0.1	057800000P
C10:0	< 0.1	%	0.1	057900000P
C12:0	< 0.1	%	0.1	058000000P
C14:0	0.7	%	0.1	058100000P
C16:0	17.0	%	0.1	058400000P
C16:1	3.6	%	0.1	058500000P
C18:0	5.7	%	0.1	058800000P
C18:1	42.6	%	0.1	058900000P
C18:2	27.3	%	0.1	059000000P
C18:3	2.2	%	0.1	059100000P
C20:0	0.4	%	0.1	059200000P
C20:1	< 0.1	%	0.1	059300000P
C20:4	0.2	%	0.1	059400000P
C22:0	0.1	%	0.1	059600000P
C22:1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Lancaster Laboratories, Inc.
Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

LAB SAMPLE NO. (L) 51849

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4001 Nebraska Avenue, NW
Washington, DC 20016

Chicken Nuggets School #3

Date Reported 4/22/87
Date Submitted 4/ 9/87
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	60.8	grams	0.1	079100000P
Protein	11.9	g/serving	0.1	079200000P
Fat	15.7	g/serving	0.1	079300000P
Carbohydrate	9.7	g/serving	0.1	079400000P
Calories	228.	Cal/serv.	0.1	079500000P
Cholesterol	46.8	mg/serv.	0.1	079600000P
Sodium	380.	mg/serv.	0.1	079700000P
Protein	18.4	% US RDA	0.1	079800000P

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Lancaster Laboratories, Inc.
Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
(717) 656-2301

All Sample No. LC 151860

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4001 Nebraska Avenue, NW
Washington, DC 20016

Pizza School #4

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	48.5	% by wt.	0.01	010100800P
Protein (N x 6.25)	12.8	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	10.1	% by wt.	0.1	010802500P
Fiber	0.7	% by wt.	0.1	011001700P
Ash	2.71	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	25.2	% by wt.	0.1	011500000P
Est. Caloric Value	243.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.024	% by wt.	0.006	019609000P
Sodium	5,320.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	532.	mg/100g	0.005	044000000P
Sodium	151.	mg/ oz.	0.001	044100000P
Saturated Fats	5.8	% by wt.		900100000P
Unsaturated Fats	4.3	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

LLL Sample No. MC 0151860

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4001 Nebraska Avenue, NW
Washington, DC 20016

Pizza School #4

Date Reported 4/22/87
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	1.0	%	0.1	057800000P
C10-0	2.6	%	0.1	057900000P
C12-0	3.1	%	0.1	058000000P
C14-0	10.2	%	0.1	058100000P
C16-0	29.7	%	0.1	058400000P
C16-1	2.6	%	0.1	058500000P
C18-0	11.0	%	0.1	058800000P
C18-1	25.8	%	0.1	058900000P
C18-2	11.2	%	0.1	059000000P
C18-3	2.3	%	0.1	059100000P
C20-0	0.3	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	< 0.1	%	0.1	059400000P
C22-0	< 0.1	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Gloria Gates, B.S.
Chemist I

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED 1909
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Acct. Sample No. C 51860

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Pizza School #4

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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	120.	grams	0.1	079100000P
Protein	15.3	g/serving	0.1	079200000P
Fat	12.1	g/serving	0.1	079300000P
Carbohydrate	30.2	g/serving	0.1	079400000P
Calories	291.	Cal/serv.	0.1	079500000P
Cholesterol	29.1	mg/serv.	0.1	079600000P
Sodium	638.	mg/serv.	0.1	079700000P
Protein	23.5	% US RDA	0.1	079800000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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ANALYSIS REPORT

Lancaster Laboratories

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2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

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Chicken Nuggets School #4

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Date Submitted 4/ 9/87
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	40.2	% by wt.	0.01	010100800P
Protein (N x 6.25)	12.4	% by wt.	0.1	010401600P
Fat (Ether Extract)	31.9	% by wt.	0.1	010901300P
Fiber	0.2	% by wt.	0.1	011001700P
Ash	2.43	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	12.9	% by wt.	0.1	011500000P
Est. Caloric Value	388.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.037	% by wt.	0.006	019609000P
Sodium	6,680.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	668.	mg/100g	0.005	044000000P
Sodium	189.	mg/ oz.	0.001	044100000P
Saturated Fats	7.6	% by wt.		900100000P
Unsaturated Fats	24.3	% by wt.		900200000P

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Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

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Chicken Nuggets School #4

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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	< 0.1	%	0.1	057900000P
C12-0	< 0.1	%	0.1	058000000P
C14-0	0.5	%	0.1	058100000P
C16-0	17.1	%	0.1	058400000P
C16-1	4.0	%	0.1	058500000P
C18-0	5.4	%	0.1	058800000P
C18-1	35.5	%	0.1	058900000P
C18-2	32.7	%	0.1	059000000P
C18-3	3.9	%	0.1	059100000P
C20-0	0.4	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.2	%	0.1	059400000P
C22-0	0.3	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Revieved and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories

P.O. BOX 12425 NEW HOLLAND PIKE LANCASTER PA 17601

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Chicken Nuggets School #4

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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	87.8	grams	0.1	079100000P
Protein	10.9	g/serving	0.1	079200000P
Fat	28.0	g/serving	0.1	079300000P
Carbohydrate	11.3	g/serving	0.1	079400000P
Calories	341.	Cal/serv.	0.1	079500000P
Cholesterol	32.5	mg/serv.	0.1	079600000P
Sodium	586.	mg/serv.	0.1	079700000P
Protein	16.7	% US RDA	0.1	079800000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2... NEW HOLLAND PIKE, LANCASTER, PA 17601 ... LLI Sample No. MC 1151855

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4001 Nebraska Avenue, NW
Washington, DC 20016

Hot Dog School #4

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	45.0	% by wt.	0.01	010100800P
Protein (N x 6.25)	12.9	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	13.1	% by wt.	0.1	010802500P
Fiber	0.5	% by wt.	0.1	011001700P
Ash	2.99	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	25.5	% by wt.	0.1	011500000P
Est. Caloric Value	271.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.076	% by wt.	0.006	019609000P
Sodium	9,200.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	920.	mg/100g	0.005	044000000P
Sodium	261.	mg/ oz.	0.001	044100000P
Saturated Fats	3.7	% by wt.		900100000P
Unsaturated Fats	9.4	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Lancaster Sample No. WG 151855

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Hot Dog School #4

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	< 0.1	%	0.1	057900000P
C12-0	0.1	%	0.1	058000000P
C14-0	0.8	%	0.1	058100000P
C16-0	20.3	%	0.1	058400000P
C16-1	5.4	%	0.1	058500000P
C18-0	6.8	%	0.1	058800000P
C18-1	37.4	%	0.1	058900000P
C18-2	25.2	%	0.1	059000000P
C18-3	2.7	%	0.1	059100000P
C20-0	0.4	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.8	%	0.1	059400000P
C22-0	0.1	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA. 17601

LLI Sample No. MC 1151855

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Hot Dog School #4

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	92.3	grams	0.1	079100000P
Protein	11.9	g/serving	0.1	079200000P
Fat	12.1	g/serving	0.1	079300000P
Carbohydrate	23.5	g/serving	0.1	079400000P
Calories	250.	Cal/serv.	0.1	079500000P
Cholesterol	70.2	mg/serv.	0.1	079600000P
Sodium	849.	mg/serv.	0.1	079700000P
Protein	18.1	% US RDA	0.1	079800000P

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Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2120 NEW HOLLAND PIKE, LANCASTER, PA 17601

LLI Sample No. MC 1151861

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Cheeseburger School #4

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	44.0	% by wt.	0.01	010100800P
Protein (N x 6.25)	18.6	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	12.9	% by wt.	0.1	010802500P
Fiber	0.2	% by wt.	0.1	011001700P
Ash	2.40	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	21.9	% by wt.	0.1	011500000P
Est. Caloric Value	278.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.052	% by wt.	0.006	019609000P
Sodium	5,070.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	507.	mg/100g	0.005	044000000P
Sodium	144.	mg/ oz.	0.001	044100000P
Saturated Fats	6.6	% by wt.		900100000P
Unsaturated Fats	6.3	% by wt.		900200000P

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Group Leader, Food Chemistry

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ANALYSIS REPORT

Lancaster Laboratories

LANCASTER AND PINE, LANCASTER, PA 17603

LLI Sample No. MC 1151861

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Cheeseburger School #4

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8:0	0.5	%	0.1	057800000P
C10:0	1.4	%	0.1	057900000P
C12:0	1.7	%	0.1	058000000P
C14:0	7.1	%	0.1	058100000P
C16:0	27.5	%	0.1	058400000P
C16:1	3.5	%	0.1	058500000P
C18:0	12.7	%	0.1	058800000P
C18:1	34.2	%	0.1	058900000P
C18:2	8.8	%	0.1	059000000P
C18:3	2.2	%	0.1	059100000P
C20:0	0.3	%	0.1	059200000P
C20:1	< 0.1	%	0.1	059300000P
C20:4	0.2	%	0.1	059400000P
C22:0	< 0.1	%	0.1	059600000P
C22:1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Lancaster Laboratories, Inc.
Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

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2420 NEW HOLLAND PIKE, LANCASTER, PA 17601

ANALYSIS REPORT

LL Sample No. C 151861

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Cheeseburger School #4

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	126.	grams	0.1	079100000P
Protein	23.3	g/serving	0.1	079200000P
Fat	16.2	g/serving	0.1	079300000P
Carbohydrate	27.5	g/serving	0.1	079400000P
Calories	349.	Cal/serv.	0.1	079500000P
Cholesterol	65.3	mg/serv.	0.1	079600000P
Sodium	636.	mg/serv.	0.1	079700000P
Protein	35.8	% US RDA	0.1	079800000P

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Revieved and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
(717) 656-2301

Lit Sample No. MC 0151858

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Taco Casserole with Chips School #4

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	55.7	% by wt.	0.01	010100800P
Protein (N x 6.25)	11.7	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	7.8	% by wt.	0.1	010802500P
Fiber	0.8	% by wt.	0.1	011001700P
Ash	1.95	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	22.2	% by wt.	0.1	011500000P
Est. Caloric Value	206.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.029	% by wt.	0.006	019609000P
Sodium	3,840.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	384.	mg/100g	0.005	044000000P
Sodium	109.	mg/ oz.	0.001	044100000P
Saturated Fats	3.4	% by wt.		900100000P
Unsaturated Fats	4.4	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Lancaster Sample No. MC 1151858

Channel 4 News - VRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Taco Casserole with Chips School #4

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	0.4	%	0.1	057800000P
C10-0	0.9	%	0.1	057900000P
C12-0	1.3	%	0.1	058000000P
C14-0	4.6	%	0.1	058100000P
C16-0	26.3	%	0.1	058400000P
C16-1	3.0	%	0.1	058500000P
C18-0	9.3	%	0.1	058800000P
C18-1	29.2	%	0.1	058900000P
C18-2	22.9	%	0.1	059000000P
C18-3	1.6	%	0.1	059100000P
C20-0	0.3	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	< 0.1	%	0.1	059400000P
C22-0	0.1	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Lancaster Laboratories, Inc.
Revieved and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

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Lab Sample No. MC 1151858

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Washington, DC 20016

Taco Casserole with Chips School #4

Date Reported 4/22/87
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Discard Date 5/23/87
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	132.	grams	0.1	079100000P
Protein	15.4	g/serving	0.1	079200000P
Fat	10.3	g/serving	0.1	079300000P
Carbohydrate	29.3	g/serving	0.1	079400000P
Calories	272.	Cal/serv.	0.1	079500000P
Cholesterol	38.6	mg/serv.	0.1	079600000P
Sodium	508.	mg/serv.	0.1	079700000P
Protein	23.7	% US RDA	0.1	079800000P

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Group Leader, Food Chemistry

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601 (717) 656-2301

Acct. No. [illegible]

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
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Nachos & Sauce School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	47.6	% by wt.	0.01	010100800P
Protein (N x 6.25)	6.6	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	10.9	% by wt.	0.1	010802500P
Fiber	1.2	% by wt.	0.1	011001700P
Ash	2.28	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	31.5	% by wt.	0.1	011500000P
Est. Caloric Value	250.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.009	% by wt.	0.006	019609000P
Sodium	4,900.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	490.	mg/100g	0.005	044000000P
Sodium	139.	mg/ oz.	0.001	044100000P
Saturated Fats	3.2	% by wt.		900100000P
Unsaturated Fats	7.7	% by wt.		900200000P

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Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
(717) 656-2301

LL Sample No. BC 1151864

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Nachos & Sauce School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	< 0.1	%	0.1	057900000P
C12-0	0.7	%	0.1	058000000P
C14-0	1.7	%	0.1	058100000P
C16-0	21.9	%	0.1	058400000P
C16-1	1.2	%	0.1	058500000P
C18-0	4.8	%	0.1	058800000P
C18-1	25.6	%	0.1	058900000P
C18-2	42.3	%	0.1	059000000P
C18-3	1.4	%	0.1	059100000P
C20-0	0.3	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	< 0.1	%	0.1	059400000P
C22-0	0.2	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

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LLL Sample No. WC 151864

Channel 4 News - WRC TV
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Nachos & Sauce School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	71.4	grams	0.1	079100000P
Protein	4.7	g/serving	0.1	079200000P
Fat	7.7	g/serving	0.1	079300000P
Carbohydrate	22.5	g/serving	0.1	079400000P
Calories	178.	Cal/serv.	0.1	079500000P
Cholesterol	6.4	mg/serv.	0.1	079600000P
Sodium	350.	mg/serv.	0.1	079700000P
Protein	7.2	% US RDA	0.1	079800000P

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Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
NEW HOLLAND PIKE, LANCASTER, PA 17601

LLI Sample No. MC 1151872

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4001 Nebraska Avenue, NW
Washington, DC 20016

Country Fried Steak School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	45.6	% by wt.	0.01	010100800P
Protein (N x 6.25)	11.8	% by wt.	0.1	010401600P
Fat (Ether Extract)	24.7	% by wt.	0.1	010901300P
Fiber	0.2	% by wt.	0.1	011001700P
Ash	2.87	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	14.9	% by wt.	0.1	011500000P
Est. Caloric Value	329.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.045	% by wt.	0.006	019609000P
Sodium	8,760.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	876.	mg/100g	0.005	044000000P
Sodium	249.	mg/ oz.	0.001	044100000P
Saturated Fats	6.8	% by wt.		900100000P
Unsaturated Fats	17.9	% by wt.		900200000P

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Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Lan. Sample No: CC 151872

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4001 Nebraska Avenue, NW
Washington, DC 20016

Country Fried Steak School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	< 0.1	%	0.1	057900000P
C12-0	< 0.1	%	0.1	058000000P
C14-0	2.8	%	0.1	058100000P
C16-0	25.5	%	0.1	058400000P
C16-1	5.7	%	0.1	058500000P
C18-0	15.0	%	0.1	058800000P
C18-1	42.7	%	0.1	058900000P
C18-2	5.9	%	0.1	059000000P
C18-3	1.6	%	0.1	059100000P
C20-0	0.2	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.4	%	0.1	059400000P
C22-0	0.1	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Lab Sample No. IC 151872

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Country Fried Steak School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
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P.O.
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Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	97.5	grams	0.1	079100000P
Protein	11.5	g/serving	0.1	079200000P
Fat	24.1	g/serving	0.1	079300000P
Carbohydrate	14.5	g/serving	0.1	079400000P
Calories	321.	Cal/serv.	0.1	079500000P
Cholesterol	44.2	mg/serv.	0.1	079600000P
Sodium	855.	mg/serv.	0.1	079700000P
Protein	17.8	% US RDA	0.1	079800000P

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Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Lancaster Lab. Sample No. MC 1151862

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Sausage & Cheese Pizza School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	48.1	% by wt.	0.01	010100800P
Protein (N x 6.25)	13.4	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	11.6	% by wt.	0.1	010802500P
Fiber	0.7	% by wt.	0.1	011001700P
Ash	2.76	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	23.5	% by wt.	0.1	011500000P
Est. Caloric Value	252.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.032	% by wt.	0.006	019609000P
Sodium	5,920.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	592.	mg/100g	0.005	044000000P
Sodium	168.	mg/ oz.	0.001	044100000P
Saturated Fats	6.0	% by wt.		900100000P
Unsaturated Fats	5.6	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2428 NEW HOLLAND PIKE, LANCASTER, PA 17601

LL Sample No. NC 051862

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Sausage & Cheese Pizza School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	0.5	%	0.1	057800000P
C10-0	1.4	%	0.1	057900000P
C12-0	1.7	%	0.1	058000000P
C14-0	7.0	%	0.1	058100000P
C16-0	27.5	%	0.1	058400000P
C16-1	3.6	%	0.1	058500000P
C18-0	12.9	%	0.1	058800000P
C18-1	34.6	%	0.1	058900000P
C18-2	8.4	%	0.1	059000000P
C18-3	2.2	%	0.1	059100000P
C20-0	0.3	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	< 0.1	%	0.1	059400000P
C22-0	< 0.1	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

1 COPY TO Channel 4 News - WRC TV ATTN: Elizabeth Crenshaw

Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Sausage & Cheese Pizza School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	125.	grams	0.1	079100000P
Protein	16.8	g/serving	0.1	079200000P
Fat	14.4	g/serving	0.1	079300000P
Carbohydrate	29.3	g/serving	0.1	079400000P
Calories	314.	Cal/serv.	0.1	079500000P
Cholesterol	40.2	mg/serv.	0.1	079600000P
Sodium	739.	mg/serv.	0.1	079700000P
Protein	25.8	% US RDA	0.1	079800000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
(717) 656-2301

Acct. Sample No. XC 151863

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Cheeseburger School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	47.1	% by wt.	0.01	010100800P
Protein (N x 6.25)	17.4	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	11.1	% by wt.	0.1	010802500P
Fiber	0.7	% by wt.	0.1	011001700P
Ash	2.71	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	21.0	% by wt.	0.1	011500000P
Est. Caloric Value	254.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.040	% by wt.	0.006	019609000P
Sodium	6,080.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	608.	mg/100g	0.005	044000000P
Sodium	172.	mg/ oz.	0.001	044100000P
Saturated Fats	5.5	% by wt.		900100000P
Unsaturated Fats	5.6	% by wt.		900200000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

LLI Sample No. MC 1151863

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Cheeseburger School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	0.7	%	0.1	057800000P
C10-0	1.7	%	0.1	057900000P
C12-0	2.1	%	0.1	058000000P
C14-0	7.2	%	0.1	058100000P
C16-0	25.1	%	0.1	058400000P
C16-1	2.7	%	0.1	058500000P
C18-0	12.0	%	0.1	058800000P
C18-1	34.9	%	0.1	058900000P
C18-2	11.1	%	0.1	059000000P
C18-3	2.2	%	0.1	059100000P
C20-0	0.4	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	< 0.1	%	0.1	059400000P
C22-0	< 0.1	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601

LL# Sample No. WC 1051863

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Cheeseburger School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	135.	grams	0.1	079100000P
Protein	23.5	g/serving	0.1	079200000P
Fat	15.0	g/serving	0.1	079300000P
Carbohydrate	28.4	g/serving	0.1	079400000P
Calories	342.	Cal/serv.	0.1	079500000P
Cholesterol	54.0	mg/serv.	0.1	079600000P
Sodium	821.	mg/serv.	0.1	079700000P
Protein	36.1	% US RDA	0.1	079800000P

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Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories
INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
Lit. Sample No. HC 151859

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Long Hot Dog School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Moisture	43.3	% by wt.	0.01	010100800P
Protein (N x 6.25)	11.9	% by wt.	0.1	010401600P
Fat (Acid Hydrolysis)	8.5	% by wt.	0.1	010802500P
Fiber	0.2	% by wt.	0.1	011001700P
Ash	2.37	% by wt.	0.01	011201200P
Est. Digestable Carbohydrate	33.7	% by wt.	0.1	011500000P
Est. Caloric Value	259.	Cal/100g	0.1	011700000P
Fatty Acid Profile		attached		018909000P
Cholesterol	0.039	% by wt.	0.006	019609000P
Sodium	7,150.	ppm	0.5	040801200P
Nutritional Report		attached		043200000P
Sodium	715.	mg/100g	0.005	044000000P
Sodium	203.	mg/ oz.	0.001	044100000P
Saturated Fats	2.6	% by wt.		900100000P
Unsaturated Fats	5.9	% by wt.		900200000P

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Group Leader, Food Chemistry

ANALYSIS REPORT

Lancaster Laboratories

INCORPORATED
2425 NEW HOLLAND PIKE, LANCASTER, PA 17601
(717) 656-2301

LAB Sample No. C 151859

Channel 4 News - WRC TV
4001 Nebraska Avenue, NW
Washington, DC 20016

Long Hot Dog School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Fatty Acid Profile	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
C8-0	< 0.1	%	0.1	057800000P
C10-0	< 0.1	%	0.1	057900000P
C12-0	0.2	%	0.1	058000000P
C14-0	1.2	%	0.1	058100000P
C16-0	20.1	%	0.1	058400000P
C16-1	3.1	%	0.1	058500000P
C18-0	8.6	%	0.1	058800000P
C18-1	34.7	%	0.1	058900000P
C18-2	28.3	%	0.1	059000000P
C18-3	2.7	%	0.1	059100000P
C20-0	0.3	%	0.1	059200000P
C20-1	< 0.1	%	0.1	059300000P
C20-4	0.8	%	0.1	059400000P
C22-0	< 0.1	%	0.1	059600000P
C22-1	< 0.1	%	0.1	059700000P

Individual fatty acid concentrations are reported as a percentage of the total identifiable fatty acids present.

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Gloria Gates, B.S.
Chemist I

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ANALYSIS REPORT

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LL# Sample No. HC 151859

Channel 4 News - WRC TV
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Washington, DC 20016

Long Hot Dog School #5

Date Reported 4/22/87
Date Submitted 4/ 9/87
Discard Date 5/23/87
Collected by C
P.O.
Rel.

Nutritional Report	RESULT AS RECEIVED		LIMIT OF DETECTION	LAB CODE
Serving Size	136.	grams	0.1	079100000P
Protein	16.2	g/serving	0.1	079200000P
Fat	11.5	g/serving	0.1	079300000P
Carbohydrate	45.7	g/serving	0.1	079400000P
Calories	351.	Cal/serv.	0.1	079500000P
Cholesterol	52.8	mg/serv.	0.1	079600000P
Sodium	970.	mg/serv.	0.1	079700000P
Protein	24.9	% US RDA	0.1	079800000P

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

Julia A. O'Donnell B.A.
Group Leader, Food Chemistry

Ms. Lea Thomson, Reporter
Channel 4 News
4001 Nebraska Ave.
Washington, D.C. 20016

3444 Skyview Terr.
Falls Church, Va. 22042

Several weeks ago I began raising the question of improving the school lunches. I am finding your reports very helpful and intesting.

My principal is arranging a meeting between my class and a rep. from Food Services.

Any data you can share with us on Fairfax County and how it compares with others would be very helpful.

I hope to hear from you,

Sincerely, Nathan Nicht

Representing Belvedere 5th grade students.

May 15, 1987

Dear Ms. Thompson,

I have been a teacher in the Montgomery County Public School system for 20 years. I have often deplored the condition of the school lunch program. We try to teach good nutrition in the classroom and yet, when the children go to the lunchroom, they see just the opposite. One day, I counted 3 desserts on the lunch menu.

Recently, I taught a nutrition unit. At the end of the unit, the children brainstormed ideas for the kinds of food items that they could pack in a paper bag that would meet the requirements for a well-balanced lunch. Then we made up a couple of menus, brought in the designated foods, and the children practiced packing their own lunches.

The food service department is always advertising "Don't bag it, buy it!" If they want more children to buy lunch, they need to plan and present more nutritious lunches.

Thank you for your TV series, "Flunking Lunch". Take it from one

who has watched the school lunch program in Montgomery County for 20 years, you are right on! Keep up the good work.

Mrs. Rae King
MCPS teacher

P.S. I never buy the school lunch.

May 13, 1987

Dear Ms. Thompson,

Thank you so much for your expose on the school lunch program in this area. For the last few months, mothers in our school have joined together and watched our children eat their "fast food" lunches in disgust.

We complained to the junior high school (from where our children's lunches are satellited from), and we seemed to get some response and an apology, of sorts. We, also, spoke to Mr Dimuzio, who was very vague about making any changes - and yet very quick to tell us about surpluses and being given so many potatoes and hamburger.

We are concerned about the scarcity of fruits and raw vegetables in our children's diets. I enjoyed watching Mr Dimuzio slide by the issue jokingly, poking fun at the past presidents and their "contributions" to the school lunch program: Jimmy Carter and his peanuts, Reagan and the beef and potatoes. I wanted so badly to call and say, "Do we have to wait for Bugs Bunny to become President before our children are able to eat raw carrot sticks and celery sticks?"

Our lunch menus have improved considerably since we first voiced our concerns; perhaps those involved realize we are still watching them. We contacted our School Board representative, Marcy Canavan, and she is now watching with us. In fact, we contacted other PTA's and asked them to question their members about the school menus, but we never received an answer. Perhaps they weren't interested. Ironically, though, as our lunches have improved, theirs have gone downhill. I assume that we are receiving their good lunches and they are being short-changed now.

This situation distresses us greatly; however, we are only a handful of concerned mothers in Southern PG county. Our hopes are that enough mothers saw your enlightening broadcasts through the week, and that they might concentrate their energies to help us rid all our schools of all these starchy, fatty lunches, so filled with sodium, - and bring in more fruits and raw vegetables.

We are grateful for your substantial and timely help in doing what we could not. Your influence and objective reporting may be just what we needed to get the ball rolling for improved lunches everywhere. Bless you.

Very respectfully,

The Mothers in PG County

Montgomery County Government

May 14, 1987

Lea Thompson
WRC-TV News
4001 Nebraska Avenue N.W.
Washington, D.C. 20016

Dear Ms. Thompson:

I wish to contratulate you on your recent TV news series investigating the nutritional quality of area school lunches.

Many people are aware of the need for good nutrition; your series will undoubtedly raise necessary concerns and questions that will hopefully result in positive changes in the school lunch program. As a nutritionist working with the Montgomery County Health Department, I applaud your efforts to improve the nutrition and long-term health of one age group where it will have the most impact: our children.

Sincerely,

Deborah Krieg, M.S., R.D.

Deborah Krieg, M.S., R.D.
Nutritionist, Montgomery County Health Department
100 Maryland Avenue
Rockville, Maryland 20850

P.S. Have you thought of doing a follow-up series to report on progress (or lack of progress) in making crucial changes?

4001 Nebraska Avenue, N.W.
Washington, DC 20016
202 885-4000

A Television Station of
National Broadcasting
Company, Inc.

TRANSCRIPT

WRC-TV
FIVE-PART SERIES
"FLUNKING LUNCH"
Air Dates: May 4--8, 1987

This investigation examines the school lunch program in the District of Columbia and Arlington, Fairfax, Montgomery and Prince Georges counties. The report addresses the issues of the USDA Commodity Program and its relationship to the school lunch Program.

###

Washington, DC 20016
202 885-4000

National Broadcasting
Company, Inc.

WRC-TV
WASHINGTON

STATION: WRC-TV (Channel 4) TIME: 6:00 pm

DATE: May 4, 1987 SUBJECT: Flunking Lunch

SUSAN KING: Tonight we have a startling report about what your children are eating in school. Lea Thompson and her investigative staff have been taking a close look at the elementary school hot lunches that are served in the areas all around here. And you may find, they found, the findings disturbing. You tell it.

LEA THOMPSON: Junk food, I don't think is what most of you think your children will eat when you give them the money to buy a hot lunch at school. But our investigation shows that is what many kids are getting, and we think that means that the school systems are Flunking Lunch.

If you look at school menus you can't help but notice that school lunch meals look just like fast food. Knowing that fast food has a reputation for high fat and high sodium or salt, we decided to put school lunches to the test.

We discovered school foods are extremely high in fat and sodium and, in a lot of cases, even higher in fat and sodium than fast foods.

One hundred fifty thousand lunches served every day to elementary school children in our metropolitan area. If you combine Prince Georges, Montgomery, Fairfax, Arlington, and the District of Columbia, you are talking about a lot of food, a huge production of very big business.

In a few schools, lunches are made at the school itself. But in most cases, lunches are prepared at big

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central kitchens and shipped to the elementary schools. But no matter where it is made, the food looks the same. Hamburgers, hot dogs, pizza, ground beef, it looks like fast food.

JULIUS JACOBS (Dir. DC Food Serv.): You know, in urban areas where there is a Mac somebody on every corner. I mean, let's face it, that is the standard on which kids identify with.

BAILEY McCREERY (Dir. Arlington Food Serv.): The McDonald's, and the Wendy's, and the large corporations in the United States are actually doing my advertising for me.

LEA THOMPSON: And when you ask the kids what they like to eat, it's the food that looks like fast food.

ROSANNA BARRETO (Mtg. Co. 6th Grader): The pizza, the hot dog, the spaghetti, chicken nuggetts.

JOSEPH PENNINGTON (Arlington 2nd Grader): Cheeseburgers and french fries, too.

STUDENT: Doritos are my favorite.

LEA THOMPSON: We decided to get four to five of the favorite foods from each of our jurisdictions and have the food analyzed for its nutritional content.

We took the food to Lancaster Labs in Pennsylvania, one of the top labs in the country for food analysis. We asked the lab to check the protein, carbohydrates, fats, sodium, cholesterol, a complete nutritional breakdown. Then we went over the results with nutritionist Bonnie Liebman at the Center for Science in the Public Interest.

BONNIE LIEBMAN: I was shocked. We have been concerned for sometime about what kids were eating in schools, but it had never occurred to us that the school lunch meals were worse than what kids would get in a fast food restaurant.

LEA THOMPSON: The first thing to realize is elementary school children should have no more than 900 to 1,200 milligrams of sodium, and 11 to 15 teaspoons of fat per day.

Comparing fast food statistics published by the Center for Science to our school food statistics, look at this: A serving of Domino's pizza, the same weight as that offered in the DC schools, had 850 milligrams of sodium and two teaspoons of fat. But DC's pizza has a third more sodium, 1,220 milligrams of sodium and 6.5 teaspoons of fat, lots more sodium than Domino's and more than three times the fat; that's half the fat and all of the sodium a child is supposed to get in a whole day.

JULIUS JACOBS: Twelve hundred of sodium is unsatisfactory.

LEA THOMPSON: I mean, what can you, as the food service director, do about it?

JULIUS JACOBS: Two immediate things we can do about it is: One, since we are already serving a larger portion than needed, we can immediately cut back on that. The second thing we can do, although pizza is a tremendously favorite thing with kids, we can decrease the frequency.

LEA THOMPSON: If you take the same amount of McDonald's chicken McNuggetts and Prince Georges school nuggetts and analyzed them, look what happens. McNuggets have 413 milligrams of sodium and 3.5 teaspoons of fat.

Prince Georges is serving nuggetts with 586 milligrams of sodium and 6.4 teaspoons of fat; that's half the sodium and fat a child should eat in a whole day. And nuggetts are just one part of one meal.

TONY DiMUZIO (Dir. PG Co. Food Serv.): It could be the manufacturer's product. More skin could have been used, which is high in fat in that particular nuggett.

LEA THOMPSON: Does that surprise you that your kids are getting 6.5 teaspoons of fat every time that they have an order of chicken nuggetts?

TONY DiMUZIO: Now that I see this, yes.

LEA THOMPSON: Let's look at hot dogs. A Hardees hot dog has 744 milligrams of sodium. Montgomery County's hot dog, which is smaller, has 949 milligrams.

JOANN STYER (Dir. Mtg. Food Service): We limit the number of times that we serve a hot dog because they are higher in sodium and the nitrite situation, but we do provide them because it is something that the students ask for.

LEA THOMPSON: And cheeseburgers. Well, a McDonald's regular cheeseburger has 743 milligrams of sodium. The Fairfax County school cheeseburger, which is a little bigger, has 821 milligrams.

DOROTHY VAN EDMOND-PANNELL (Dir. Fairfax Food): The sodium is not one that we have spent a lot of time looking at because it is relatively difficult to do.

BONNIE LIEBMAN: If a child is fed junk food in the school, the message is that this is good for you. This is what you should be eating. The fact is that the school should be serving food that is better than what kids get at anywhere else.

LEA THOMPSON: School food service directors tell us fully 60 to 70 percent of the food they serve looks like fast food because they know it is food that they know that the kids will eat.

But even so, we have discovered identical menu items high in sodium and fat at one school, but low in the next county. Our question: If one county can make a pizza or a cheeseburger lower in fat or sodium, why can't they all? We tackle that tomorrow. Susan.

SUSAN KING: Guess moms are going to start making the lunches if they keep watching us. Lea Thompson.

Washington, DC 20016
202 885-4000

National Broadcasting
Company, Inc.

WRC-TV
WASHINGTON

STATION: WRC-TV (Channel 4) TIME: 6:00 pm

DATE: May 5, 1987 SUBJECT: Flunking Lunch

SUSAN KING: Lea Thompson joins us again with another eye-opening special report on what our children are eating at school. Last night, you remember, she showed how frequently served foods are often higher in fat and sodium than what you get at a fast food restaurant. Hard to believe. Tonight, she compares school lunch systems county to county.

LEA THOMPSON: What we discovered is how well your children eat at school has a lot to do with where you live. We gathered school lunches from elementary schools in all area jurisdictions and had them tested in a private laboratory. After looking at the test results, we think all of our area school systems are Flunking Lunch, some getting more failing grades than others.

But what really surprises us is how identical food items like pizza and hot dogs vary so greatly in nutritional content depending on the county in which they are served.

We bought cheeseburges and hot dogs, tacos, and chili macaroni casseroles. We bought pizza and chicken nuggetts, and county fried steak, and we had all of them tested in a top lab for nutritional analysis. Then nutritionist Bonnie Liebman analyzed the results.

BONNIE LIEBMAN: Well, frankly, I wonder whether the people who order this food themselves knew how much sodium or how much fat is in there. Frankly, I don't think it is a high priority with the school systems.

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LEA THOMPSON: Arlington, Fairfax, Montgomery, Prince Georges, the District, all of our area school systems purchase food pretty much the same way.

Vendors make bids for the business, and local school lunch programs get commodities like meat and cheese from the Department of Agriculture subsidy programs, either for free or for a very low price. So, one might assume food from one county to another would be very similar in nutritional content. That is not what we found.

Take a look at pizza, the most popular item on everybody's menu. If you adjust all servings to the same size, the slice of pizza the kids get in Montgomery County elementary schools has 663 milligrams of sodium. But the Fairfax pizza with sausage has a whole lot more, 1,017 milligrams. And the DC pizza, it is just cheese and has a whopping 1,220 milligrams of sodium. That is almost twice the Montgomery County pizza, and more sodium than a child should get in a whole day.

BONNIE LIEBMAN: A pizza is not a pizza, is not a pizza. The nutritional value of the pizza varied significantly depending on which schools served it. And that is very important because if school "A" can serve a pizza with half the sodium of all the others, than that means it is feasible, and it can be done.

LEA THOMPSON: Can you do anything to reduce the sodium in the pizza?

DOROTHY VAN EGMOND-PANNELL (Dir. Fairfax Food): Well, I am considering a couple of things. One is I will require companies to provide me with this data. We do on many, many items. Pizza has not been one of them, so, I will start requiring that.

JULIUS JACOBS (Dir. DC Food): We are going to have to go back to the drawing board and make those kind of adjustments just as we can and, you know, move on from here.

LEA THOMPSON: Every one of the school lunch supervisors in our area said they were surprised at our findings, and even more surprised that one area's food could be so different from anothers.

Take a look at hot dogs. The Montgomery hot dogs we tested had almost a thousand milligrams of sodium, the maximum amount of sodium some children should have for a whole day. Yet a Fairfax hot dog, the same size, 642 milligrams, a third less sodium than the Montgomery hot dog.

And take a look at the difference in fat in school lunch hot dogs. The Arlington hot dog had three teaspoons of fat. But the Fairfax hot dog only 1.7, and those fatty Arlington hot dogs came from the Department of Agriculture, the USDA.

Your hot dog, I think it is fair to say, is just really out of line on fat. Where do you get your hot dog from?

BAILEY McCREERY (Dir. Arlington Food Serv.): USDA.

LEA THOMPSON: A government hot dog?

BAILEY McCREERY: That is correct.

LEA THOMPSON: Can we blame the fat in the hot dogs in Arlington County on the government?

BAILEY McCREERY: You can go back to the processor, yes.

LEA THOMPSON: So, this is a USDA hot dog which you had no say over.

BAILEY McCREERY: That is correct.

LEA THOMPSON: While Arlington's hot dogs are high in fat, it's chicken nuggetts look pretty good, especially, in comparison to the other schools, 378 milligrams of

sodium and four teaspoons of fat. Around the beltway in Prince Georges County the same weight in nuggetts had 586 milligrams of sodium, salt, and 6.3 teaspoons of fat.

BONNIE LIEBMAN: I think the schools in Prince Georges County ought to be calling up Arlington and Montgomery County and finding out who they are getting their chicken nuggetts from.

TONY DiMUZIO: Well, I intend taking this information and changing the specifications, and question the various vendors, and insure that we drop down considerably more on the sodium and the fat which we were led to believe were minimal in both particular products. So, you have provided a tremendous service to me as far as I am concerned.

LEA THOMPSON: Quite frankly, we found some food service directors just haven't paid much attention to salt and fat in the past. Some say they want to, but they cannot afford to pay for independent test figures like ours. Food service directors can request nutritional information from suppliers, but our testing, they say, shows suppliers statistics are often unreliable.

And there is another huge problem. Fully a third of what your children eat comes from USDA commodity programs. Our area school systems have no nutritional control over the federal government.

Tomorrow, we take a look at USDA's massive role in the school lunch program, and how it determines what your children will eat.

SUSAN KING: I guess USDA doesn't do this testing, either?

LEA THOMPSON: Well, we tell you all about that tomorrow night.

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National Broadcasting
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WRC-TV
WASHINGTON

STATION: WRC-TV (Channel 4) TIME: 6:00 pm

DATE: May 6, 1987 SUBJECT: Flunking Lunch

SUSAN KING: Lea Thompson returns tonight with another look at the school lunch programs in our area. We think you will be surprised at how it is that what is decided that your children are going to eat.

LEA THOMPSON: All the food service directors say they worry about nutrition, but they have to serve something the kids just won't throw in the trash can. They also say they have to take what is given to them by the Department of Agriculture.

Our findings and testing indicates that in some cases school systems are Flunking Lunch, and have become the dumping ground for high fat and high sodium foods.

STUDENT: My least favorite is fish, barbecued chicken, and a salad.

STUDENT: I only pick up the food, but I don't like the salads.

LEA THOMPSON: It is a tricky combination finding food that is good for kids that they will also eat. That's why much of the food on the school menu looks like fast food.

Food service directors admit that cheeseburgers and fried chicken aren't always the best thing for kids. They say they are trying to introduce more healthful foods by cutting back on sweets and introducing more fresh fruit and vegetables. We found some elementary schools that even have salad bars.

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BAILEY McCREERY (Dir. Arlington Food): I see more and more students going for the fresh vegetables, and going for the fresh fruits. And I see this growing every year.

LEA THOMPSON: School lunch is big business in Washington; 150,000 lunches served every day. It cost a huge amount of money in both manpower and supplies.

The way county school systems survive is with the help of the federal government, which pitches in with both cash and free or low cost food. Just this year Washington area school systems have purchased from the Deparment of Agriculture two million pounds of beef, four hundred thousand pounds of chicken and turkey, six hundred thousand pounds of processed American cheese.

TONY DiMUZIO: Out of 6.5 million dollars worth of food purchases I can get about 2.5 million dollars worth of government food, and these are foods that are surplus foods, price support foods.

SUSAN HARRIS (Dep't. of Agric.): We provide somewhere around 60 different types of items.

LEA THOMPSON: But our testing of school foods indicates some of those USDA items are very high in fat and sodium. For instance, every school system in our area gets its ground beef and its cheese from USDA. Every school systems cheeseburgers that we tested were too high in fat and sodium.

DC's tested out the worst: 862 milligrams of sodium, salt, and 6 teaspoons of fat. That is higher in both sodium and fat than you would get if you went to McDonalds or Burger King.

The Fairfax school systems cheeseburgers weren't much better: 821 milligrams of sodium, 3.5 teaspoons of fat.

DOROTHY VAN EGMOND-PANNELL: Well, in all cases, we are using USDA government cheese, which is one of the reasons for our high sodium. And we do tend to use a good bit of it because that is a dairy product that is very generously given to us.

LEA THOMPSON: Let us say that the cheese was too fatty and too full of sodium. What can you do about it?

DOROTHY VAN EGMOND-PANNELL: Well, I am hoping that maybe with the data that you have here, that we can furnish some of this to USDA. And, maybe in turn have them take a look at their products and their specifications.

LEA THOMPSON: Specifications? Many nutritionists feel USDA allows too much fat in the first place in its beef and every food service director we talked to says there just isn't enough quality control at USDA.

BAILEY McCREERY: Just because the specifications ask for a certain fat level or sodium level doesn't mean that you are going to get that unless the program is monitored, and that being the product sent out periodically and tested for that fat level and sodium level.

LEA THOMPSON: We asked USDA if it ever has independent tests done to monitor its food?

SUSAN HARRIS: Not a monitoring situtation, I don't believe. If we had a problem, you know, that was developing, people...school food service people raising questions, then, obviously, we could do that to some extent. That would be very expensive for us to do.

LEA THOMPSON: USDA says it is too expensive to test foods for nutritional quality. The school systems say they cannot afford to do it. So, millions of pounds of high salt and high fat food continue to be dumped into our school systems, and the schools continue to take it because they cannot afford to pass up all that free and low-cost food. The result, of course, our nations school children, our areas school children end up eating food high in fat and high in salt.

And there is politics here. Big money politics. Tomorrow the story of why your kids are eating so much red meat at school, and how one quick amendment is going to load up our children with butterfat. Susan.

SUSAN KING: That is interesting. See you tomorrow.

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National Broadcasting
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WRC-TV
WASHINGTON

STATION: WRC-TV (Channel 4) TIME: 6:00 pm

DATE: May 7, 1987 SUBJECT: Flunking Lunch

SUSAN KING: Big news day and a big news week. Lea Thompson, of course, all week has been taking a close look at school lunch programs in her special reports. Tonight she looks at politics in the lunchroom.

LEA THOMPSON: All week we have been showing you results of elementary school food we had tested for its nutritional content. Those statistics reveal that much of what kids are eating looks like fast food, and is filled with fat and sodium, salt, which means our school systems are Flunking Lunch.

Tonight we tell you why much of what your kids are served depends on what special interests the government wants to serve.

A billion pounds of food: Beef, cheese, pears, applesauce, flour, tatertots, french fries. Schools get about 25 percent of their food from the U. S. Department of Agriculture, the rest they buy through private vendors.

Some of that food from the USDA is free. It is bought from American farmers to help them out, but it is not always the healthiest for kids. For example: Americans are buying less red meat because they are concerned about its connection to heart disease. What isn't being eaten at home, is being bought up by the government and pushed into the school lunch program.

BONNIE LIEBMAN: We are essentially dumping on our children the food that the rest of us don't want to eat.

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LEA THOMPSON: To make matters worse, to cut back on the number of dairy cows, the Congress decided to buy up part of the country's dairy herd and turn it into ground beef.

SUSAN HARRIS (USDA School Lunch Program): And we were required under provisions of law to purchase 200 million pounds of ground beef, and distribute it as best we could. One of the ways that we did that was through the schools lunch program.

TONY DiMUZIO (PG Co. School): And we have had our share of ground beef served in the school every possible way from spaghetti to lasagna, to beefaroni, to hamburgers, to tacos...barbecue.

JOANN STYER (Mtg. Co. School): A couple of years ago we got all kinds of turkey. I mean, we had just turkey coming out, literally, out of our warehouses. This last year it has been beef.

LEA THOMPSON: And then there is the extra cheese. Millions and millions of pounds of subsidy cheese, all made from high butterfat milk. Where does a lot of it go? To the school lunch program.

TONY DiMUZIO: It is a 100 percent natural product, cheddar and mozzerella that we use in our schools that we are getting from the government and that, obviously, has higher percentage of fat.

LEA THOMPSON: More than 10 years ago, our local school systems started serving two percent milk following government guidelines that low-fat milk was healthier for kids, but that is going to change.

In the last session of Congress, an amendment was attached to the school lunch bill. And starting next Fall, every school in the country will have to carry whole milk. The sponsor of that bill, the Congressman from the largest dairy producing district in the nation.

JOANN STYER: And now to have to add whole milk, after we have come this far with getting the acceptance of a low-fat milk, is a very discouraging fact when this is supposed to be a nutrition program.

BONNIE LIEBMAN: We should be feeding our children the best kind of food available. Not only will what they eat effect their risk...their later risk of heart disease, possibly cancer, and other health problems, but school should be a place where kids learn what a good meal is.

LEA THOMPSON: The fact is the school lunch program has always been fraught with politics. School food service directors have a unique perspective on who's in the White House.

TONY DiMUZIO: Well, going back to the President Kennedy's days, we used to get a considerable amount of cranberry sauce and cranberry juice and a few others things from that particular part of the country.

When President Carter was in, we were inundated with peanuts, and peanut grains. All coincidentally, by the way.

Now, from California we are getting fruits and vegetables and, of course, the beef. We haven't got the jelly beans, yet.

LEA THOMPSON: The school lunch program is terribly important. It feeds millions of kids every single day across our country. For some it is their only hot meal. It is an important program to fight hunger. That's all the more reason attention must be given to insure that what the kids are eating is the most nutritious food this country can produce.

Tomorrow, we will fill you in on some things that are already happening as a result of our reports this week.

SUSAN KING: A really interesting story.

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National Broadcasting
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WRC-TV
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STATION: WRC-TV (Channel 4) TIME: 6:00 pm

DATE: May 8, 1987 SUBJECT: Flunking Lunch

SUSAN KING: All this week we have told you about the problem, and tonight we are telling you about some reactions. Senator Patrick Leahy announced today that he plans to grill the USDA on its school lunch program.

Leahy said today he is quite concerned about the findings of our Channel 4 investigation, and he has asked Lea Thompson to testify on Capitol Hill at a hearing he has called for May 19. And there are other developments also in our series.

LEA THOMPSON: There are, indeed. Of course, all this week we have been showing you results of independent tests we have done on school lunch food. When analyzed, those statistics show that not only are kids eating what looks like fast food but, in many cases, it is higher in fat and salt than what they would get at a fast food restaurant.

We feel that area schools, as a result, are Flunking Lunch, so do some doctors, teachers, parents, kids, and members of Congress.

REP. LEON PANNETTA (D) CA: In what you presented in the program, basically, confirms our worst suspicions that it is higher even than what they are getting in fast foods. And, I think, that that tells us that we simply have to get a better handle on this situation.

DR. DAVID JACOBS (Internist Medicine): Well, I

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think that exposing kids to a high fat, high sodium regiment among other sorts of problems, predisposes them to premature heart disease, as well as hypertension. This is not a one-to-one linear sort of thing, but it is something that if they can learn early and make some changes early, they would benefit from that for the rest of their life.

LEA THOMPSON: Area school lunch directors, frankly, were astonished by the facts and figures we gave them; some already vowing to make changes in their procedures in menus right now.

We have made all of our test results available to each director and they say they want to share information on suppliers so they can find those companies who are making the healthiest foods.

Fairfax County tells us it is ready to drop a menu item, its country fried steak because our test results showed it extremely high in fat and sodium.

Prince Georges County is ready to purchase a different hot dog because its dog is so much higher in fat and sodium than the other counties.

Montgomery County tells us it will request better and more nutrition figures from the companies it buys its food from.

DC's food service director was astonished by the sodium in his pizza. He is ready to change companies and he is going to ask Howard University to help do nutrition testing on DC's menu items.

All of the school food service directors tell us they cannot control all of the food. About 25 percent of it comes directly from the Department of Agriculture, which buys out surpluses from the American farmer.

Congressman Leon Pannetta, who sits on the House of Representative's Committee on Agriculture, says the USDA is paying more attention to the farmers needs than to the children's health. He has legislation that he hopes will force the USDA to change.

REP. LEON PANNETTA: So, it is both the farm program and a feeding program at the same time, and sometimes the two don't come together. What you buy in terms of excess bulk that may be out there in the agricultural community, may not always be the best nutrition for kids. And, I think, that is where we have got to try to bring these two policies together. That's not happening.

LEA THOMPSON: Can they be brought together?

REP. LEON PANNETTA: I think so. I think it can be brought together through tough administration. We are going to have to have better oversight of the foods that are going out there. There is no reason to simply dump that food if it is high sodium or high fat on kids.

LEA THOMPSON: Even the kids are getting involved in what they eat. We have heard from kids who have asked their principal and their school lunch director to meet to discuss on how they can get more healthy foods at the counter.

Some public thanks to the great consumer staff here at WRC-TV that did such great work on this report. Producer Elizabeth Crensawh and Researcher Sheila Duffy. Also, to tape editor Craig Wunderlich. And our camera crew, John Wanzer and Eddie Prince.

SUSAN KING: What are those kids asking for? More fruit?

LEA THOMPSON: They want to sit down and they want to talk about it, and they want to figure out how they are going to get that fat out of the hamburger. It is terrific!

SUSAN KING: Thank you, Lea.

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THE FOLLOWING IS REPORTER LEA THOMPSON'S RESPONSE TO THE USDA LETTER FROM SUZANNE HARRIS, DEPUTY ASSISTANT SECRETARY FOR FOOD AND CONSUMER SERVICES. IT WAS SENT TO WRC-TV'S GENERAL MANAGER JERRY NACHMAN REGARDING THE NEWS SERIES "FLUNKING LUNCH" AND WE BELIEVE THESE ANSWERS ALSO ADDRESS THOSE ISSUES U.S.D.A. BROUGHT UP AT THE HEARINGS BEFORE THE COMMITTEE.

FOR REFERENCE, WE HAVE GIVEN EACH PARAGRAPH OF THE HARRIS DOCUMENT A LETTER. LEA THOMPSON'S COMMENTS ON THOSE PARAGRAPHS FOLLOW:

A. & B. AND PART OF C. - CRITICISM OF WRC-TV FOR "FAILING" TO COVER THE "ENTIRE SCHOOL LUNCH PROGRAM":

WRC-TV DID MASSIVE RESEARCH ON THE SCHOOL LUNCH PROGRAM AS A WHOLE. A LOT OF RESEARCH CAME FROM DEPUTY ASSISTANT SECRETARY HARRIS'S OFFICE. HOWEVER, AFTER WRC-TV GOT IT'S TESTS BACK, WE CHOSE TO SINGLE OUT SODIUM AND FAT BECAUSE THE FIGURES WERE SO ALARMING. IN PART FOUR, HOWEVER, WE DID ACKNOWLEDGE THAT SOME SCHOOLS ARE NOW OFFERING SALAD BARS AND FRUIT INSTEAD OF CAKE AND COOKIES. AND, MORE THAN ONCE WE TALKED ABOUT THE IMPORTANCE OF THE SCHOOL LUNCH PROGRAM AND IT'S GREAT IMPACT ON LOW INCOME KIDS. BUT OUR STORY WAS NOT ABOUT THE ENTIRE SCHOOL LUNCH PROGRAM. IT WAS NOT ABOUT THE TOTAL NUTRITION PROGRAM. IT WAS ABOUT HIGH LEVELS OF SALT AND FAT IN SCHOOL LUNCHES AND HOW THEY GOT THERE.

C. - THE HOT DOG ISSUE:

DEPUTY ASSISTANT SECRETARY HARRIS'S OFFICE DID CALL OUR CHIEF RESEARCHER SHEILA DUFFY SAYING THAT U.S.D.A. DOES NOT SUPPLY HOTDOGS ANYMORE EVEN THOUGH A SCHOOL FOOD SERVICE DIRECTOR HAD TOLD US THAT IS WHERE HIS HOTDOGS CAME FROM. WE DID NOT CONSIDER THE ISSUE SO IMPORTANT OR SO SIGNIFICANT IN THAT DAY'S SEGMENT TO GO BACK ON THE AIR TO CORRECT THE ITEM. THE FACT IS THE HOT DOG IN QUESTION WAS VERY HIGH IN FAT. AT THAT POINT IN THE OVERALL SERIES, WHERE THE HOT DOG CAME FROM WAS NOT REALLY RELEVANT.

D. - CHARGES THAT WRC-TV BROADCAST WAS BUILT ON MISLEADING PRETENSES AND POOR METHODOLOGY AND CONTAINED A LACK OF BALANCE AND MISLEADING INFORMATION:

WE MISLED NO ONE, OUR METHODOLOGY WAS IMPECCABLE, AND OUR INFORMATION WAS CORRECT.

E. & F. - CHARGES THAT WRC-TV DISREGARDED THE TRUTH, AND FAILED TO COMPARE COMPLETE MEALS:

WE WERE TRUTHFUL, WE NEVER LIED. WE DID NOT COMPARE COMPLETE MEALS. WRC-TV COMPARED ENTREES. EACH ITEM WE TESTED COST $228. WE FELT IF WE TESTED THE ENTREE, THE MAJOR PART OF THE MEAL, WE WOULD GET A GOOD INDICATION OF WHAT KIDS WERE EATING. WE SHOWED THE ITEMS SERVED SIXTY PERCENT OF THE TIME...THE MOST POPULAR ITEMS...HAMBURGERS, CHICKEN NUGGETS, PIZZA AND HOTDOGS WERE HIGH IN FAT AND SODIUM. TESTING FOODS SERVED ALONG WITH THOSE ITEMS WOULD NOT HAVE REDUCED THE TOTAL FAT OR SODIUM INTAKE, THE NUMBERS WOULD ONLY HAVE GONE HIGHER.

G. - THE ALLEGATION THAT WRC-TV GAINED ENTRANCE TO THE SCHOOLS WITH MISLEADING PRETENSES:

WHEN WRC-TV'S CONSUMER/INVESTIGATIVE UNIT FIRST CONTACTED THE SCHOOL FOOD SERVICE DIRECTORS WE TOLD THEM WE WERE DOING A STORY ON SCHOOL LUNCHES AND COMPARING THE VARIOUS COUNTIES. WE DID NOT TELL THEM WE PLANNED TO TEST THEIR FOOD. WE DETERMINED THAT WE SHOULD PICK UP THE FOOD OURSELVES INSTEAD OF ASKING THE SCHOOL SYSTEMS FOR IT BECAUSE WE WANTED TO MAKE SURE THAT IT WAS HANDLED PROPERLY AND WE WANTED TO MAKE SURE THAT THE FOOD WE TESTED WOULD BE THE ACTUAL FOOD NORMALLY SERVED. THE FACT IS, IN PRINCE GEORGES AND THE DISTRICT OF COLUMBIA, WE HAD TROUBLE GETTING THE FOOD SO WE DID ASK THEM TO COOPERATE WITH

US. BUT, EVEN IN THOSE SCHOOL SYTEMS, WE WENT TO A SCHOOL OURSELVES AND PICKED UP THE FOOD OUT OF A REGULAR CAFETERIA LINE.

AS TO THE USDA CHARGE THAT WE KNEW ALL ALONG THAT OUR FOCUS WOULD BE ON SODIUM AND FAT - IT'S NOT TRUE. IF WE HAD STARTED WITH THAT FOCUS WE WOULD NOT HAVE SPENT THE THOUSANDS OF DOLLARS TO GET A COMPLETE NUTRIONAL BREAKDOWN INCLUDING SUCH ITEMS AS PROTEIN, FATTY ACIDS ETC.

U.S.D.A. COMPLAINS THAT OUR RESEARCHER SHEILA DUFFY TOLD THEM THE LABORATORY RESULTS WERE NOT AVAILABLE UNTIL JUST BEFORE THE INTERVIEW AT U.S.D.A. THAT IS CORRECT. THE LAB RESULTS CAME IN THURSDAY NIGHT. WE WENT OVER THEM WITH NUTRITIONIST BONNIE LIEBMAN OF THE CENTER FOR SCIENCE IN THE PUBLIC INTEREST ON FRIDAY AND STARTED INTERVIEWING FOOD SERVICE DIRECTORS ON MONDAY.

H. - U.S.D.A. CLAIMS WRC-TV'S METHODOLOGY IS SUSPECT:

U.S.D.A. COMPLAINS WRC-TV DID NOT LOOK AT VITAMINS AND MINERALS. WE DID NOT TEST FOR VITAMINS AND MINERALS. OUR CONSULTANT, BONNIE LIEBMAN AT THE CENTER FOR SCIENCE IN THE PUBLIC INTEREST AND ALSO LANCASTER LABS FELT THE TESTING WE DID WAS THE TESTING THAT SHOULD BE DONE FOR A "COMPLETE NUTRITIONAL ANALYSIS".

U.S.D.A. COMPLAINS WRC-TV'S COLLECTION PROCESS WAS QUESTIONABLE. WE FOLLOWED THE DIRECTIONS GIVEN TO US BY LANCASTER LABS WHICH INCLUDED FREEZING AND PACKAGING IN ICE. WE DROVE THE SAMPLES OURSELVES TO PENNSYLVANIA TO ENSURE NOTHING WOULD SPOIL.

U.S.D.A. CHARGES WRC-TV'S TESTING WAS "POOR QUALITY" AND THAT WE HAD "INCOMPLETE DATA". OUR TESTING PROCEDURES WERE HARDLY "QUICK AND DIRTY" AS CHARGED. THEY TOOK TWO WEEKS FOR THE LAB TO COMPLETE. THE PROCEDURES FOLLOWED BY LANCASTER LABS ARE THE SAME THEY USE FOR THE GOVERNMENT (U.S.D.A.) AND FOR MANUFACTURES WHO USE THE LAB TO DETERMINE FIGURES FOR PACKAGE NUTRITION LABELING. THE LAB HAS NO PROBLEMS WITH OUR SUPPOSITIONS NOR DOES NUTRITIONIST BONNIE LIEBMAN. THEY WERE OUR EXPERTS. WE REPORTED WHAT THEY FOUND.

I. - U.S.D.A. CLAIMS WRC-TV USED INACCURATE COMPARISONS:

IN ALL COMPARISONS, EXCEPT HAMBURGERS, WE COMPARED GRAMS TO GRAMS. HOTDOGS HAPPENED TO BE ALL THE SAME. WE ADJUSTED PIZZA AND CHICKEN NUGGETS TO THE SAME SIZE BECAUSE THERE WAS A WIDE VARIATION FROM SCHOOL SYSTEM TO SCHOOL SYSTEM. ALL OF THE SCHOOL HAMBURGERS WERE VERY CLOSE IN SIZE. WE COMPARED THEM TO A MCDONALDS REGULAR HAMBURGER RATHER THAN A QUARTER POUNDER BECAUSE WE FELT A QUARTER POUNDER WAS MORE THAN MOST ELEMENTARY SCHOOL KIDS WOULD EAT. THE MCDONALDS REGULAR HAMBURGER IS ABOUT 20 GRAMS SMALLER THAN A SCHOOL HAMBURGER...THE QUARTER POUNDER ABOUT 20 GRAMS BIGGER. WE DID NOT ADJUST BECAUSE WE FELT...THE SIZE DIFFERENCES WERE SMALL AND A HAMBURGER WAS A HAMBURGER. WHAT WAS PUT IN FRONT OF THE KIDS...THEY WOULD EAT. THE FACT IS...BOTH THE MCDONALDS HAMBURGERS AND THE SCHOOL LUNCH HAMBURGERS ARE TOO HIGH IN FAT. THAT IS WHAT WE SAID.

U.S.D.A. ALLOWS GROUND MEAT WITH A FAT CONTENT UP TO 24%. GIANT FOOD TELLS US IT'S LEAN AVERAGES 20%...AND IT'S EXTRA LEAN AVERAGES 16%. SO, MS. HARRIS IS INCORRECT WHEN SHE SAYS SCHOOL GROUND BEEF IS EQUAL TO SUPERMARKET LEAN OR EXTRA LEAN. IN FACT, CAROL TUCKER FOREMAN, WHO WAS AN ASSISTANT SECRETARY AT USDA APPOINTED BY JIMMY CARTER TELLS US THE FAT LEVELS IN GROUND BEEF NOW FAR EXCEED THOSE ALLOWED FOR THE SCHOOL LUNCH PROGRAM DURING THE CARTER ADMINISTRATION. SHE FEELS NO MORE THAN 16% FAT SHOULD BE ALLOWED IN THE SCHOOL LUNCH PROGRAM.

MS. HARRIS CONTENDS SCHOOL LUNCH FAT FIGURES ARE BELOW THAT OF COMMERCIAL OUTLETS. IF SHE IS TALKING ABOUT FAST FOOD OUTLETS, WE KNOW THAT SOME OF THE SCHOOL FOOD WE TESTED WAS HIGHER IN FAT AND SODIUM THAN SOME ITEMS AT MCDONALDS, DOMINOS, HARDEES AND BURGER KING.

J. - U.S.D.A. QUESTIONS WRC-TV'S COMPARISON OF SCHOOL FIGURES TO FAST FOOD FIGURES:

EVERYONE'S FIGURES COME FROM HIGHLY CONTROLLED CONDITIONS AND WERE ALL DONE IN THE SAME WAY. DOMINO'S FIGURES CAME FROM INDEPENDENT TESTING DONE AT MEDALLION LABORATORIES, A SUBSIDIARY OF GENERAL MILLS. A HIGHLY RESPECTED LABORATORY. MCDONALDS FIGURES CAME FROM HAZELTON LABS, ANOTHER HIGHLY RESPECTED LABORATORY. OURS WAS DONE BY LANCASTER LABS, ALSO A HIGHLY RESPECTED LABORATORY. IN ALL CASES, A NUMBER OF SAMPLES OF EACH ITEM WAS BLENDED TOGETHER AND THE FIGURE COMES FROM THAT BLENDED FIGURE.

K. - U.S.D.A. CONTENDS THE WRC-TV BROADCAST HAD LACK OF BALANCE:

AS NOTED ABOVE, WE WERE AWARE OF VARIOUS STUDIES DONE BY U.S.D.A. ON SCHOOL LUNCHES. NONE, HOWEVER, HAVE EVER BEEN DONE ON SODIUM AND FAT AND THAT IS WHAT THIS STORY WAS ABOUT.

L. - U.S.D.A. EFFORTS TO LIMIT SUGAR, SODIUM AND FAT:

MS. HARRIS MENTIONS U.S.D.A. PLANS TO SEND RECIPES TO THE SCHOOLS THAT WOULD HELP THEM LOWER SUGAR, SODIUM AND FAT. IT IS OUR UNDERSTANDING THAT DUE TO U.S.D.A. BUDGET CUTS, THE RECIPES HAVE BEEN ON HOLD FOR OVER TWO YEARS AND HAVE STILL NOT GONE OUT.

MS. HARRIS COMMENTS, "THE MOST NUTRITIOUS MEAL IN THE WORLD DOES NOTHING IF THE CHILD WILL NOT CONSUME IT." WE AGREE AND WE SAID SO. HOWEVER, WE SUGGEST PARENTS ARE HAVING NO TROUBLE GETTING THEIR KIDS TO EAT LEAN HAMBURGERS AT HOME. AND, FOR EXAMPLE, DOMINO'S PIZZA IS MADE WITH LOW FAT MOZZARELLA CHEESE. THE KIDS LOVE THEM. SCHOOL PIZZAS ARE MADE WITH HIGH FAT CHEESE.

M. - MS. HARRIS'S COMPLAINT THAT WRC-TV TOOK HER COMMENTS OUT OF CONTEXT:

WRC-TV'S QUESTION ON TAPE TO HARRIS WAS WHETHER U.S.D.A. DOES INDEPENDENT TESTS TO MONITOR IT'S SCHOOL FOOD. MS. HARRIS'S ANSWER WAS "NOT A MONITORING SITUATION, I DO NOT BELIEVE." AFTER DOING THE INTERVIEW HER PEOPLE DID CALL SHEILA DUFFY AT WRC-TV AND TELL HER MS. HARRIS WAS INACCURATE BECAUSE THE U.S.D.A. DOES MONITOR BEEF. CALLS WENT BACK AND FORTH ON THE EXTENT OF MONITORING ON ALL OTHER PRODUCTS. THERE IS VERY LITTLE MONITORING AT U.S.D.A. ON ANYTHING BUT BEEF SO WE FEEL WHAT MS. HARRIS TOLD US ON CAMERA WAS ACCURATE AND WE USED THAT SOUND BITE.

N. - STANDARDS FOR FAT AND SODIUM:

MS. HARRIS IS IN ERROR WHEN SHE SAYS "THERE IS NOT WIDELY RECOGNIZED STANDARDS FOR APPROPRIATE FAT CONSUMPTION BY CHILDREN OTHER THAN THE AMERICAN ACADEMY OF PEDIATRICS." THE NATIONAL ACADEMY OF SCIENCES NATIONAL RESEARCH COUNCIL SETS THE STANDARDS FOR DIETARY GUIDELINES FOR U.S.D.A., THE FOOD AND DRUG ADMINISTRATION, THE DEPARTMENT OF HEALTH AND HUMAN SERVICES AND EVERYONE ELSE IN THE COUNTRY. IN 1982 IT'S DIET, NUTRITION AND CANCER COMMITTEE SET FIGURES FOR CHILDREN AT 30 PERCENT OF ENERGY (CALORIES) AS FAT. THOSE FIGURES HAVE NOW BEEN ADOPTED BY THE AMERICAN CANCER SOCIETY AND THE NATIONAL CANCER INSTITUTE. FURTHER, IN 1980 THE AMERICAN HEART ASSOCIATION AND NATIONAL INSTITUTES OF HEALTH CONSENSUS PANEL ALSO ADOPTED THAT 30 PERCENT FIGURE.

THE ABOVE GROUPS ARE CONSIDERED THE "OFFICIAL" GUIDELINE MAKERS. THE AMERICAN ACADEMY OF PEDIATRICS IS NOT. THE TEASPOON MEASUREMENTS WE USED CORRELATE TO THAT 30 PERCENT FIGURE.

O. - FAT INTAKE:

HARRIS CONTENDS ALL THE FOOD COMPOSITION DATA WRC-TV FOUND WAS WITHIN THE RANGE ALLOWED FOR FAT...TRUE. BUT IT WAS WITHIN THE RANGE A CHILD SHOULD GET FOR A WHOLE DAY, NOT FOR ONE ITEM. SURELY, U.S.D.A DOES NOT BELIEVE THAT A CHILD SHOULD CONSUME HIS OR HER ENTIRE ALLOTED AMOUNT OF FAT IN JUST ONE ITEM AT SCHOOL.

P. - U.S.D.A. CONTENDS WRC-TV DID NOT CONSIDER VARIABILITY DUE TO COOKING TECHNIQUE:

IN OUR AREA, ALL THE SCHOOL SYSTEMS BAKE ALMOST EVERYTHING. THERE IS VERY LITTLE DEEP FAT FRYING OR FRYING ON THE GRILL. WE FELT THE COOKING TECHNIQUES WERE SO SIMILAR THAT IT WAS NOT AN ISSUE TO ADDRESS.

Q. - SODIUM STANDARDS AND QUESTION ABOUT WHY WRC-TV DID NOT TRANSCRIBE SALT TO TEASPOONS:

THE FOOD AND NUTRITION BOARD OF THE NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMY OF SCIENCES PUBLISHES THE RECOMMENDED DIETARY ALLOWANCES. IN IT IS A DISCUSSION OF THE RECOMMENDED LEVELS FOR SODIUM. THOSE ARE THE FIGURES WRC-TV USED AS GUIDELINES. AS ABOVE, THEY ARE THOSE FIGURES ACCEPTED BY ALMOST EVERYONE, EXCEPT, IT SEEMS THE U.S.D.A.

WE DID NOT DISCUSS SALT IN TEASPOONS BECAUSE THE RECOMMENDED LEVEL FOR A CHILD IS A FRACTION OF A TEASPOON AND IMPOSSIBLE TO SHOW GRAPHICALLY. AND THAT IS WHY WE CHOSE TO STAY WITH THE MILLIGRAM MEASUREMENT.

R. - U.S.D.A. WONDERS WHY WE CHANGED THE PERCENTAGE OF FOOD SUPPLIED BY U.S.D.A. TO THE SCHOOL LUNCH PROGRAM FROM ONE DAY TO THE NEXT:

WRC-TV HAD BEEN LED TO BELIEVE BY SCHOOL FOOD SERVICE DIRECTORS THAT ABOUT THIRTY PERCENT OF ALL SCHOOL FOOD WAS SUPPLIED BY U.S.D.A. COMMODITY PROGRAMS. IN FACT, THAT IS EXACTLY THE FIGURE FOR PRINCE GEORGES COUNTY. WE USED THAT FIGURE IN OUR THIRD BROADCAST OF OUR SERIES. U.S.D.A. TOLD US THE FIGURE WAS CLOSER TO TWENTY FIVE PERCENT SO ON THURSDAY AND FRIDAY WE USED TWENTY FIVE.

S. - A COMMENT ON DOROTHY VANEGMOND-PANNELL'S LETTER TO LEA THOMPSON DATED APRIL 29, 1987 WHICH MS. HARRIS ATTACHED TO HER LETTER:

MS. VANEGMOND-PANNELL'S LETTER WAS WRITTEN BEFORE WRC-TV EVER BROADCAST THE SERIES "FLUNKING LUNCH." SOME THINGS SHE COMPLAINED ABOUT NEVER WERE ON THE AIR. THE REST OF HER CONCERNS HAVE BEEN ADDRESSED ABOVE.

IN GENERAL, THE DEPUTY ASSISTANT SECRETARY HARRIS'S COMMENT THAT..."FAT AND SODIUM ARE NOT THE MAJOR FACTORS IN DETERMINING WHETHER OR NOT A MEAL IS NUTRITIOUS"...IS FLAWED. ALL THE VITAMINS AND MINERALS IN THE WORLD DO NOT NEGATE THE FACT THAT WE FOUND EXTREMELY HIGH LEVELS OF FAT AND SODUIM IN WHAT THE KIDS ARE EATING. NONE OF HER CRITICISMS CHANGE THAT FACT.

BOTTOM LINE. WE NOW KNOW THAT HIGH FAT AND HIGH SODIUM LEAD TO HEART DISEASE, CANCER AND A MYRIAD OF OTHER PROBLEMS.

A GALLUP POLL OF ADULTS IN MAY APPLIES. IT FOUND 57% OF AMERICAN ADULTS ARE NOW WATCHING THEIR SODIUM CONSUMPTION. MAYBE THAT IS WHY PARENTS WERE SO SHOCKED BY "FLUNKING LUNCH". WHAT THEY ARE TRYING TO DO AT HOME IS BEING "UNDONE" AT SCHOOL.

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20250

RECEIVED
MAY 26 1987
JERRY NACHMAN

May 18, 1987

Mr. Jerry Nachman
General Manager
WRC-TV
National Broadcasting Company, Inc.
Washington, D.C. 20016

Dear Mr. Nachman:

(A) The recent series on the school lunch program which appeared on WRC-TV was a sensational distortion of the program. Your story was biased, unbalanced, misleading, and recklessly told parents that school lunches posed a hazard to their children's nutritional well-being.

(B) Certainly, we are receptive to responsible criticism. Fat and sodium levels in school lunches are of concern. We have and will continue to make efforts to moderate those levels. However, fat and sodium are not the major factors in determining whether or not a meal is nutritious. But you would never know that from Ms. Thompson's story. USDA has evaluated the complete nutritional contribution of school lunches and found it to be superior when compared to lunches brought from home or purchased outside the school. In this study, the whole meal was evaluated.

(C) By ignoring the facts made available to Ms. Thompson and her staff and by refusing to incorporate any of the data on the positive nutritional effects of the program, your series has done the community a severe disservice. School lunches provide nutritious meals for all children, especially those in low-income areas. Furthermore, Ms. Thompson refused to correct false statements made by individuals she interviewed. This is this totally irresponsible. On the segment which aired Tuesday, May 5, a local food service director was asked how he obtained hot dogs that were found to be high in fat. He responded that he received hot dogs from USDA. The next morning, on May 6, we called Ms. Duffey, Ms. Thompson's assistant, to tell her USDA had not purchased hot dogs for distribution to school meal programs since 1974. During the course of the series, there was never an acknowledgement of this misinformation that had been provided concerning the source of these hot dogs.

(D) In the enclosure, I have listed a large number of other concerns about your station's presentation of this news story. They fall into several broad categories: collecting information under misleading pretenses, poor methodology, lack of balance, and presenting misleading information.

(E) These flaws together are a resounding indictment not only of the way in which this series was developed and promoted but also of irresponsible disregard for the truth about school lunches. The National School Lunch Program has been providing highly nutritious meals to school children for more than 40 years. WRC ignored that proud tradition.

(F) In summary, by reporting only one side of this issue, interviewing food service directors under false pretenses, failing to compare complete meals, ignoring vitamins and mineral nutrition altogether, and failing to correct inaccuracies of which you were well aware, you were able to use your sensational title "Flunking Lunch" to advantage during your May rating period. I submit that it is WRC and Ms. Thompson that have flunked lunch reporting.

Sincerely,

Suzanne S. Harris

SUZANNE S. HARRIS
Deputy Assistant Secretary for
Food and Consumer Services

Enclosure

Compendium of Concerns with WRC-TV's Series
on the Area School Lunch Program

Reporter collected information under misleading pretenses.

(G)

- Area food service directors who were interviewed for the series advised us that they too are quite concerned with the WRC report. (Enclosed is a copy of a letter which was sent to Ms. Thompson by the director of the Fairfax County Program expressing her concern about "false pretense" used in developing this story and the "sensationalist reporting".) It is our understanding that none of the five food service directors interviewed were told in advance that the primary focus of the story was to be on fat and sodium content of food taken from their lunchrooms without their knowledge. When my staff raised this issue with Ms. Duffey of Ms. Thompson's staff, her response was that the laboratory results were not available until just before the interview. The fact that food was taken from cafeterias and sent to labs well in advance of the interviews gives strong indication that the story line used by Ms. Thompson was established from the start.

Methodology used to collect the data presented was flawed and incompletely described.

(H)

- WRC's laboratory analysis which was portrayed as a "complete nutritional analysis" did not even look at vitamins and minerals. No competent nutritionist would consider this work as "complete nutritional analysis." Furthermore, no information was provided about how the samples were handled prior to analysis. These handling procedures could cause great fluctuation in measured values. During discussion with Ms. Thompson, I pointed out other possible problems in her sampling methodology and measurement techniques. What she had done can only be described as "quick and dirty." To make such sweeping charges as calling the school lunch entree items "junk food" based on these poor quality and incomplete data is irresponsible.

(I)

- The comparisons made between school lunch items and items from fast food outlets were inaccurate because there was inadequate control for portion size. The fact that a school lunch hamburger, which is significantly larger than a fast food hamburger, has somewhat more fat should be no surprise. That same hamburger would have significantly more protein and iron and other nutrients as well--a fact which was omitted from the WRC story. Iron is a particularly important example since it is a nutrient that is often lacking in the diets of school children. USDA purchased ground beef has fat levels comparable to that in lean or extra lean ground beef purchased in local supermarkets at premium prices. This is far less fat than is found in ground beef used by most commercial outlets. These facts were omitted from your story though your staff was well aware of them.

(J) o Furthermore, WRC analyzed school lunch entrees but accepted published values for the fast food comparisons. These published values likely were developed under highly controlled conditions unlike the analyses conducted by WRC.

Report was biased and did not make any attempt to present a balanced story.

(K) o The latest nationwide study conducted on the school lunch program showed school lunches provided more nutritious meals than alternative lunches eaten by children including brown bag lunches brought from home and meals purchased from commercial establishments. The nationally representative study compared complete meals and evaluated those meals as sources of vitamins, minerals and protein. WRC staff was informed of this study. If Ms. Thompson had been interested in providing a balanced story, she should have presented some of this national study's positive findings about the nutritional benefits of school lunches.

(L) o In recent years, USDA has made efforts to limit the sugar, sodium and fat content of the items we buy. These efforts continue. USDA is just completing new recipes for school lunches that will be distributed to schools throughout the country. When USDA tested and revised the recipes, we made a conscious effort to reduce sugar, fat and salt to the lowest possible level while still maintaining product acceptability. After all, the most nutritious meal in the world does nothing if the child will not consume it. Such information was provided during my interview but Ms. Thompson chose not to air this side of the story.

The series was riddled with misleading information.

(M) o Ms. Thompson interviewed me on May 1. During the course of that interview, I responded to a question concerning the extent of oversight exercised by the U.S. Department of Agriculture (USDA) on the beef products that we purchased for the school lunch program. I mistakenly gave incorrect information. Later that same day, in order to rectify this situation, two of our employees informed Ms. Duffey of the error and provided her with a factually complete answer which showed that USDA does carefully monitor the beef products used in our programs to assure compliance with USDA's specifications. As we later told Ms. Duffey, every production run of ground beef is sampled for fat content. USDA inspectors and graders oversee all meat and poultry that is produced or processed for use in the school lunch program. Ms. Duffey indicated that she understood I had not responded correctly and repeated the correct information to our staff as if to indicate her desire to get the facts straight. Again, on May 6 further information about the extent of USDA oversight and testing of other products was requested by Ms. Duffey and again our staff provided the information. Despite these efforts, on May 6 my incorrect answer appeared on television and was not in any way corrected by Ms. Thompson. Your viewers were left with the distinct impression that USDA does not exercise control of products destined for the school lunch program. Your staff knew full well, five days in

advance, that this was not the case. This can only be viewed as irresponsible reporting.

(N) o Ms. Thompson asked her viewers to accept her standards for fat and sodium without any description of how these numbers were selected. There is no widely recognized standard for appropriate fat consumption by children other than that of the American Academy of Pediatrics. This body has repeatedly warned against severe reduction of fat intakes for children. They recommend a range of 30-40 percent of calories to be obtained from fat each day. If converted to teaspoons (tsp.), this range is 20 to 26 tsp. These are not the values given by Ms. Thompson.

(O) If school lunch were to provide at a minimum one-third of fat intake, the appropriate standard would be 6.7 tsp to 8.8 tsp. Still not the numbers Ms. Thompson used. Even if one accepts Ms. Thompson's incomplete and narrow selection of foods for analysis, all of the food composition data she provided were within this range for fat and cannot be responsibly described as too high in fat.

(P) o Ms. Thompson raised the issue of variability among similar products taken from different schools. She provided only one explanation - poor quality government commodities. No mention was made of how important food preparation techniques and cooking are to the issue of the variability of cooked products. No matter how good the monitoring system of the Federal level is for the raw hamburger, final fat retention is largely determined by whether or not the fat is drained after cooking.

(Q) o With regard to sodium, Ms. Thompson lead her viewers to believe that 900-1200 mg was a "gold standard." They are not the National Academy of Sciences' safe and adequate range for children of elementary age. There is considerable scientific controversy over the question of how much sodium is too much. Ms. Thompson did not indicate this. Nor did she offer a useful reference to how much salt is equal to 1200 mg of sodium. It is a little more than 1/2 teaspoon.

(R) o Ms. Thompson's reliance on numbers was interesting. Those given for school lunch entree items were described as though they were carved in stone. But other numbers tended to vary. For example, on Wednesday evening, Ms. Thompson said "fully a third" of the food used in the school lunch meals was provided by the U.S. Department of Agriculture. On Friday, she said USDA provided "25 percent." The latter number is the correct one.

FAIRFAX COUNTY
PUBLIC SCHOOLS

Department of General Services
Office of Food Services
6800 B Industrial Road
Springfield, Virginia 22151

April 29, 1987

(S) Ms. Lea Thompson
WRC-TV
National Broadcasting Company, Inc.
4001 Nebraska Avenue NW
Washington, D.C. 20016

Dear Lea:

I am writing you rather than calling because I am enroute to the airport and will be out of town through Sunday. After thinking over the very negative interview with you yesterday, I am troubled and wish to share my concerns.

First of all, I am a professional who has given my entire career to serving children in the school lunch program. My goals are to do a good job and serve the children of Fairfax County well. Your interview and the entire project seems aimed to show school food service as not committed to the nutritional needs of the children they serve.

I am disappointed and shocked at the sensationalist reporting you are using in this project. Your reporters/crew came in under the pretense that you were doing a story on satelliting food. I got cameras into the schools under that pretense. We bent over backwards to accommodate you. I feel badly about how that was disguised.

I am disappointed because it is you who is doing this. You would not trust us to provide you with information or samples. However, you took the lab analysis furnished in the material from the fast food restaurants.

Why wouldn't you be above board in obtaining samples of our lunches? As a result of slipping them from schools you did not obtain complete or typical lunches. For example, nachos and cheese sauce is not the complete entree. As our menus show, nachos, cheese sauce and chili make up the entire entree. Why would you pick country fried steaks from only Fairfax and take me over the coals for that item. It is a new, short term menu item and you did not obtain samples from any other school district or commercial firm.

By obtaining samples of our hot dog without my knowledge, you analyzed a product that is not typically served in our elementary schools. Then you compare us with McDonald's and Domino's and do not use comparable portion sizes or ingredients. Either you should use the "Big Mac" or adjust their figures up or our figures down so product sizes are similar. I do not agree with your reasoning on that item. If you were going to use what a child would typically eat, you should be using two to three pieces of Domino pizza in comparison with one piece of our pizza. If you compare the quantity of pizza needed to meet the protein requirement, Domino's pizza would be three times higher in sodium and fat.

The question I have had since yesterday's interview is "What are you out to accomplish?" By doing this project undercover and under pretenses of something else, without the school system's knowledge, you obviously do not mean for this to be a story any of us will be proud of.

How much sodium is in the typical family's meals over the weekend when school lunches are not being served? The problem is not school lunches alone. Sodium and fat have been in this country's diet from the beginning and in far greater amounts than today. School lunch did not establish the norm.

You ask if we know about how much sodium is in the food. I only remind you we have Recommended Daily Allowances to meet, the school meal pattern requirements to meet, the USDA commodities to use, limited money to watch, and the taste requirements of childen from a variety of cultures to deal with. When you meet those requirements you will not stay below the recommended sodium requirement. We plan our menus to meet the Federal lunch pattern requirements over a week.

I hope you will reconsider your motive in this feature. Do not let all of the things we do well go down the drain just to have a sensational feature. Your results will be long term. Are they really going to benefit the children, the parents, or school lunch? You could have done a positive feature just as well on how much fresh fruits and vegetables are served, the salad bar success, and nutrition education.

Lastly, I am deeply disappointed in the use of false pretense to get into schools to film. I wish you had been up front in requesting samples, and compared similar size portions with the commercial world. I never thought Lea Thompson would use this approach in getting a story.

Sincerely

Dorothy VanEgmond-Pannell

Dorothy VanEgmond-Pannell
Director, Food Services

Senator HARKIN. I appreciate that, and I want to get into this whole thing because I am personally interested. As I say, I have a child in school, and I went to school under the program myself. We are interested of course in the diets and what is being served in the School Lunch Program.

Secretary Bode, in your comments you said that the program flunked reporting. Ms. Thompson says we are flunking school lunch, but you say they are flunking reporting. After seeing this and listening to it, could you elaborate a little more on what you feel perhaps was not covered, was not taken into account, or why you make that kind of statement?

Mr. BODE. Yes, sir. The methodology used to collect the data that was presented was flawed and incompletely described. The complete nutritional analysis, as presented, did not even look at vitamins and minerals. The comparisons made between school lunch items and items from fast food outlets were inaccurate, because there was an inaccurate control of portion size.

There was passing reference made, on occasion, that the school lunch item was larger, but that was hardly a reasonable portion-size comparison; in making that kind of a bar graph presentation.

The report was biased and did not make any attempt to present a balanced story. No reference was made to the nationwide study that I referred to earlier. USDA has made efforts to limit sugar, sodium, and fat content of the items we buy. I have heard no reference to that.

The series was riddled with misleading information. I believe that I referred earlier to this, one of the big points in the development of this story was that, here was this bad hot dog, and it was provided by USDA, Channel 4 was promptly informed that it was not; they had been misinformed on that point—they never corrected that information or made any effort to correct it.

Furthermore, they knowingly aired inaccurate information. Dr. Harris, in her interview, answered a number of questions, including some outside of her and our direct area of responsibility, in an attempt to be responsive to their questions and on one occasion provided inaccurate information about monitoring activities with respect to beef. We promptly informed the station that her statement oncamera was not correct; but they still went right ahead and used it with the knowledge that it was not correct.

The preparation techniques in cooking, which is a major influence in fat levels, was not really referred to here, and moreover, the standards that were used. You know we were given these gold standards for sodium and fat levels. I don't think they were appropriately presented; it's not my recollection from going through the RDA's that those standards were the ones provided by the RDA's, maybe it would be good if Dr. Harris and Ms. Thompson would discuss that.

It appears there was some manipulation of the RDA standards that were presented. Some of it is difficult to nitpick when you get into—and I don't think it's nitpicking when it's so pervasive—but the statement that coincided, the picture of the hamburgers on the cooking tray, saying "too much fat in beef" while showing the beef that is—I recognized that; that was beef patties in a hot water bath, which is one of the cooking techniques. But as it was de-

scribed there, it looked like they were swimming in fat. Not exactly an accurate presentation.

Dr. Harris, you might want to add or elaborate.

Senator HARKIN. I think you mean much more than that. [Laughter.]

Mr. BODE. We could probably go on at some length.

Senator HARKIN. I want to try to get to the bottom of it. I would expect some disagreements. I was assuming you were going to let Ms. Thompson respond to some of those, I wanted to ask you about the methodology. I have heard some complaints about the methodology, including the fact that different size portions were used, that perhaps the different cooking techniques were not taken into account, that type of thing. How do you respond?

Ms. THOMPSON. Well, let me address that first if I may. Included for the record are these charts.

[The charts can be found on pages 46–51.]

Ms. THOMPSON. What we did, we looked at each item and its weight, by grams. Then what we did, when we did the comparison between county and county— in some cases—and you can tell from these charts—we correlated all of them to the same size. So indeed they are correlated. They are all exactly the same size, and the statistics that we used in the charts on the air as they were broadcast, were broadcast so that they were correlated to exactly the same size.

On the back of two charts, you will see in the area of pizza and also in chicken nuggets, you will notice that we put the actual figures as they were prepared by the testing laboratory. The front shows the correlation. If they were all exactly the same size, we could compare from jurisdiction to jurisdiction.

I do not know if that answers your question, but we believe—let me talk to Bonnie a second.

Senator HARKIN. So it looks as though the methodology did take into account sizes?

Ms. THOMPSON. Yes, sir. We tried in all cases—we tried to bring it to exactly the same level so that the comparison could be made in a scientific way.

Senator HARKIN. Let me see if I can clear up one small point. Obviously, in the School Lunch Program there is a lot of cheese because there is a lot of cheese out there.

Ms. THOMPSON. Yes, sir.

Senator HARKIN. Cheese is very high in protein and is very good for you, but, it also happens to be very high in fat. In fact, if I'm not mistaken, if you take the weight of cheese compared to ground beef, the cheese may have a higher fat content.

Does the USDA specify the sodium content of cheese, or does it monitor purchased cheese in any way when the dairy program is operating?

Mr. BODE. We go by the Food and Drug Administration standards for the product. Salt is actually required in the making of cheese.

Senator HARKIN. This is what I want Ms. Thompson to understand. I understand that when we purchase the cheese in bulk quantities, it has to be salted for shelf life, for storage purposes——

Mr. BODE. It's inherent, as I understand it, I am certainly no cheesemaker, Senator, but as I understand it, it is an integral part of making cheese; the salt is required, in the process. One doesn't make cheese without using salt.

Senator HARKIN. I am going to find out about that, because I do not know if that is entirely correct. I think a lot of it, perhaps, is put in there to extend the shelf life.

Mr. BODE. I suspect that is true, as well, Senator, and we will certainly, for this discussion, grant that. But I understand, the point I made is also true——

Senator HARKIN. That salt is used in the process?

Mr. BODE. Yes.

Senator HARKIN. I wonder if extra sodium is added for USDA?

Ms. THOMPSON. Mr. Chairman, my nutritionist expert here tells me that sodium phosphate is added to the cheese, to American cheese, processed cheese.

Ms. LIEBMAN. It is used as an emulsifier. The sodium content of processed American cheese is much higher than the sodium content of, let's say, natural cheddar.

Mr. BODE. And that is why the processed cheese certainly does have much higher sodium levels than the natural cheddar.

Ms. LIEBMAN. American cheese is a blend of many cheeses, and the emulsifier keeps it all stuck together.

Ms. THOMPSON. Mr. Chairman, I want to point out that in talking with the school food service directors, they all tell me that they would like to use low-fat cheese, and it is available from USDA. The problem is that they have to buy the low-fat cheese. They get the high-fat cheese for free, and of course that is something that we all have to recognize, that these school food service directors are not going to turn down free food.

I am told you sell low fat mozzarella and also American cheese.

Mr. BODE. We started a few years ago providing mozzarella as another way to be responsive to schools in their cheese requests. That is available on a bonus basis. We have at times had difficulty meeting all of the schools' requests for mozzarella, and that has to do with processing capacity for mozzarella in this country. Some times of the year it is tough to get all the mozzarella the schools want.

Senator HARKIN. I still want to get to the bottom of this methodology. I understand they used the same size portions and had the labs test it. What is the methodology that you disagree with?

Ms. THOMPSON. Mr. Chairman, I want to add one thing to that. We did not just test one hamburger. The way the testing process works is—first of all, we went to Lancaster Laboratories in Lancaster, PA because it is a lab that is used by USDA and many other vendors. We felt that we had to go to a laboratory that would be beyond question.

We collected from each school system five hamburgers or five chicken nuggets or five whatever; so it wasn't just one hamburger that was being tested from each jurisdiction, and in the case of cheeseburgers, we tested 20, if you count up all of our various jurisdictions.

Dr. HARRIS. I think that the question Ms. Thompson has just addressed is one that is important. She, in talking with me, the one

who got on the television screen—she asked me about the methodology. We discussed it before we began the formal interview; and as a bench scientist in my former life, one of the things I had always been taught is to make sure that you have adequate replication. That means several samples of the same thing; tested each one individually, so you have some measure of variability.

That is particularly important in this kind of analysis because fat is very difficult to measure and get an accurate reading on what the food value is. As it was described to me, and as we saw on the TV screen, she took several hot dogs—is what we saw on the TV screen—and put them all into a blender together, and ground them all up and you had hot dog soup; it was the hot dog plus the bun, and then an analysis was run.

I asked for what her standard deviations were, a statistical term that shows what is the variability around the mean; and I was not given one, and was led to believe at that time that they had not done that; in other words, they had done one analysis.

I point this out because part of what USDA does is to maintain the National Nutrient Data Bank, where we have a listing of the over 4,500 foods available in this country. We have a number of well-qualified scientists who collect this kind of information, this food composition information, and how much variability is there.

These tables show that there is a significant amount of variability; and in fact I did some numbers this morning—I will be happy to share them with you at a later time—showing that all the sodium values shown for hot dogs were well within the normal range of variability; and so were not in fact significantly different from one another. It is what we would expect as the variability from hot dog to hot dog.

I think it is important that point was not raised.

Mr. BODE. So the differences, that such a big difference was made about the hot dogs of one county as compared to another; and it was all really within the normal variability, of any hot dog anywhere. Yes, those hot dogs could have all come from the same place, the same batch, and been prepared the same way; and as a matter of sampling variability, those kind of differences would be expected.

That is why replication is important in doing this kind of work, and before we can make such sweeping statements, indicting one county's hot dogs relative to another's.

Ms. THOMPSON. I can only answer that, Mr. Chairman, by saying that this is, to my knowledge, the first time that anyone has ever done a complete nutritional breakdown, talking about fat and sodium. We did do a complete nutritional breakdown. We have for the record the analysis done by the laboratory which did include protein and acids and every other thing you can possibly imagine.

We determined, after looking at those statistics, that we would look at fat and sodium because they seemed to be, quite frankly, so out of line. They were the most surprising to us. It was a complete nutritional breakdown.

As to the contention that we should have done far, far more testing, I would have loved to have done far more testing, but I will tell you that we are only a television station; we are not the USDA. These tests are expensive, and we felt they certainly were a good

indication of what we could find in our various school systems. We did test many, many items; we didn't just test hot dogs as I guess it is quite clear now——

Senator BOSCHWITZ. What does that mean, that you are "just a television station"? Is that a statement that your responsibility is not of a high level and that's what you meant to——

Ms. THOMPSON. No, sir. I think we went to the best laboratory in the country for this kind of statistics; our experts told us to take five items of each, five items from each of the major entrees was a good indicator of what we would find; we tested those five items in every one of the various school districts. I am not apologizing. I am just saying that we were not in a position to do thousands and thousands of samples.

I think that what we did do was very indicative of what you would find in a market if you did that. I certainly did not mean to apologize for our testing. We are just saying that we could not do thousands.

Senator HARKIN. I wanted to try to get through this quagmire of methodology, but I am not sure we are through it yet.

Ms. THOMPSON. Mr. Chairman, let me have our expert talk to you as well, because she certainly is——

Senator BOSCHWITZ. I don't know much about nutrition but I notice that there are 1,200 milligrams of sodium. I also notice when I go out and buy a can of soup, it will have about 800 or 900 milligrams of sodium in it, so that can of soup is 1,200, also the same as children from 7 to 10. Is that the same as adults?

Ms. THOMPSON. 1,100 to 3,300 for adults.

Senator BOSCHWITZ. Well, it sounds like a lot.

I notice, too, that in your pizza graph, Domino's pizza, 70 grams, one slice, 5 tablespoons of fat. And then, on the graph here, compared to a DC pizza, which are 172 grams, which is over twice as much——

Senator HARKIN. I don't see that figure.

Senator BOSCHWITZ. On the back there.

Senator HARKIN. On the back of what?

Senator BOSCHWITZ. Pizza.

Senator HARKIN. All right.

Senator BOSCHWITZ. It says Domino's pizza, 70 grams, one slice, with 5 tablespoons of fat.

Ms. THOMPSON. Teaspoons; yes, sir.

Senator BOSCHWITZ. And you have compared only Domino's to—I'm going to have to give up eating pizza, I can see that. But compared to DC, 172——

Ms. THOMPSON. I'm sorry, I'm just getting—excuse me, sir.

Senator BOSCHWITZ. 172, which is about 2½ times as much, has 6.65 tablespoons of fat; but yet on this graph you show Domino's at a little less than 2, and DC is at 6.6.

Ms. THOMPSON. Maybe what is confusing you is that the front figures do not match the back figures. Now, the reason for that is, is that the front figures are adjusted, and in this case we adjusted to the size of the DC pizza. On the back, it is the actual size of pizza in grams as the lab correlated those figures.

Senator BOSCHWITZ. Well, I will try to say it again. The DC pizza is 172 grams, and it has 6.65 tablespoons of fat. Right there.

Ms. THOMPSON. Yes, sir.

Senator BOSCHWITZ. The Domino's has 70 grams, or is approximately 40 percent of the size of the DC pizza, has 5 tablespoons of fat.

Ms. THOMPSON. I think we have an error, Senator. I think you are right; this is not making sense. Let me go back to the original chart here, and we will try to straighten this out.

Senator HARKIN. I see, what you are saying is that the bar graph——

Ms. THOMPSON. Yes, I think we have an error.

Senator HARKIN [continuing]. Ought to be up around 9?

Senator BOSCHWITZ. Should be up around 12½.

Senator HARKIN. Wait a minute. Yes, it should be about 12½ teaspoons. On the sodium, it would be about——

[Simultaneous discussion.]

Ms. THOMPSON. Yes, sir. What happened here, it should say 0.5. It is an error on the back of the chart. The front is correct, the back is in error. It should say 0.5.

Senator HARKIN. Or five-tenths.

Ms. THOMPSON. Half. It should say one-half.

Senator BOSCHWITZ. Five-tenths. In order to go from five-tenths, with half a pizza, to 1.95, and then there would be a four times, 4 times .5 would be 2.0. But yet the size of the slice is only 2½ times. 70 into 172 would be 2½, 2.5.

Ms. THOMPSON. We have got to get ourselves a calculator here. We have got our original material.

I promise you we will look into this and we will get it back to you momentarily.

Senator BOSCHWITZ. My staff asked me to ask you, did you test Domino's at the same research facility?

Ms. THOMPSON. No, sir. We used, the statistics for fast food that have been published by the Center for Science in the Public Interest, and Bonnie Liebman has been involved in that, and if you would like to speak to her about that, she would be pleased——

Senator BOSCHWITZ. Do they use the same methodology?

Ms. THOMPSON. Yes. Go ahead.

Ms. LIEBMAN. The figures for Domino's and other fast food items came from the companies themselves. Domino's uses Medallion Laboratories, which is a subsidiary of General Mills. It is a highly respected laboratory.

The McDonald's figures were analyzed by Hazelton Labs, another highly respected laboratory. They were not all done by Lancaster; that is because we did not want to have them reanalyze previous figures that were already published by those fast food companies.

Senator BOSCHWITZ. Do you know the methodology of these folks?

Ms. LIEBMAN. The methodology to analyze the fat content of the given food is the same. The larger methodology for the study may not be the same. I do not know how many samples McDonald's or Domino's looks at before they arrive at a publishable figure.

In our case, we took five samples of each item, had them blended together, and the figures we listed here are figures from that blended sample. That's a way of getting around the much more involved procedure of analyzing dozens of samples and getting variability. That's much more expensive.

Senator BOSCHWITZ. I am not sure that—but you are comparing two different studies?

Ms. THOMPSON. Yes, sir.

Senator BOSCHWITZ. Let me say that during the course of that whole thing there you said that the Congressman who supported the idea of whole milk—and I understand that there are other things, with sodium and fat that there are calories that are very important for kids, and that whole milk provides greater calories than skim milk.

Who was that Congressman; do you recall?

Ms. THOMPSON. Yes, sir. Congressman Gunderson.

Senator BOSCHWITZ. I thought it was Congressman Jeffords. We thought it was Congressman Jeffords. But nevertheless, you may well be right. Congressman Gunderson does indeed come from a dairy producing area, as am I; and I was responsible on this side for pushing whole milk because I thought that it was the right thing to do for kids, but I will look into this carefully.

Mr. Chairman, I am going to have to leave. But let me remind you, I have often argued with this gentleman and others as well, and have taken them to task, I am not entirely satisfied with the School Lunch Program; but I think they have done a pretty good job or at least tried, and that I'm not quite sure how one reduces, and that you make whole cheese programs, for instance, change that in such a way that you are able to reduce the sodium. I presume that the sodium is not an inconsequential part storing the cheese for a while, and keeping it so it can be used again.

But I think that your study certainly can show up a problem, and in that regard it is a very valuable one, and I will look at it at great length over the weekend; that is when I do my best work.

Senator HARKIN. Thank you very much, Senator.

I want to finish up some questions. Does Lancaster Labs feel that the number of food samples you provided them was sufficient to provide a statistically reliable estimate of the sodium and fat content of similar food items served in local school districts?

Ms. THOMPSON. Yes, sir.

Senator HARKIN. Did Lancaster Labs provide any statistical reliability or variability estimates for their test results, or did they counsel you in this regard? Do you want me to repeat that?

Ms. THOMPSON. No, sir.

We went to Lancaster Labs on the advice of Bonnie Liebman, who has been very involved in this kind of research in the past. We asked Lancaster Labs exactly what it is that it needed from us to give us statistical examples that would, frankly, hold up.

They felt that we needed to collect five items from each school district on those entrees that we were interested in. That is what we did. They told us exactly how to transport them. We followed all of that to the letter of the law. It is their opinion that we could deduct what we did from this study. We have been in constant touch with them, obviously for the last couple of months. They are well aware of what we were going to put on the air and they had no problem with it.

Senator HARKIN. I see you're shaking your head.

Mr. BODE. Lancaster Labs declined to speak with us about this undertaking. We are very surprised to hear that Lancaster Labs

would say that collection of foods—five samples from each of the counties, would be sufficient to make comparisons between the counties.

Dr. HARRIS. It is not the five samples; it is the fact that there was only one number. If the five hot dogs had been analyzed independently, then you have the measure of variability. The term, statistically significant, is a term in statistical language that means you have the measure of variability.

Senator HARKIN. Let me short circuit this. Where's a hot dog? Hardee's, Arlington, Fairfax, Montgomery, and Prince Georges. The fact is that the Montgomery County hot dog, regardless of the size, has got 949 milligrams of sodium. Is that true or not true?

Dr. HARRIS. We don't know that. Because what you have is a composite number, made up of five hot dogs. We don't know what the sodium was in any one hot dog that any child ate.

What we do know is that there is——

Senator HARKIN. But if I blended them altogether——

Dr. HARRIS. You still don't——

Senator HARKIN [continuing]. Then the average has got to be 949.

Dr. HARRIS. No, sir; that is not an average.

Senator HARKIN. What are you saying?

They took five hot dogs, blended them altogether, and came up with the sodium content of 949 milligrams. Those five hot dogs were from Montgomery County, is that true or not true?

Dr. HARRIS. That is a composite number. That gives you a figure, gives you a ballpark estimation.

The point I was trying to make earlier is, is that without some variability to know what is the normal variation between hot dog to hot dog, you cannot say whether that is a good number or a bad number.

Senator HARKIN. I am not concerned about the variation. I want to know how much sodium is going to be in the hot dog that my kids eat.

I don't care about the variation.

Dr. HARRIS. That was the amount of sodium that was contained in five hot dogs.

Senator HARKIN. Oh, that was the total amount for all five hot dogs?

Dr. HARRIS. No. If you did it on a per weight basis, those five hot dogs would have added up to a certain amount of grams; and if you multiply that number by the total weight of five hot dogs, you get the total sodium content of the five hot dogs.

To say that, to divide that number, that total number then by five and say each of those hot dogs had that much sodium in it is not statistically correct.

Senator HARKIN. I would agree with you there. That I can understand. But, nonetheless, the average then, would have to be some figure. Some might be higher, some might be lower.

Dr. HARRIS. Right, for those five hot dogs.

Senator HARKIN. For those five hot dogs.

Mr. BRALEY. Senator Harkin, a point that might help on this—and again, I need to confirm this—but my understanding is that two of the school districts here bought their hot dogs from the same purveyor, and yet different numbers were found. I believe

Montgomery and Prince Georges County bought similar hot dogs, and yet you get a different measure. I need to confirm that, but I understand that to be true from conversations I have had with the food service directors.

My point is that there is sample variation among hot dogs even coming from the same plant, and it is important to measure that variation when you choose your sample.

Senator HARKIN. Again, I look at this chart and I see Montgomery has 949 milligrams and Prince Georges 849, but then I look at Fairfax, which is 642, and I say, "Well, if I had my choice of hot dogs, I'd rather have that one." In fact, I'd rather have one even lower in sodium than that.

Dr. HARRIS. But what that 642 does not tell you is, all the hot dogs in the batch served at Fairfax, are they 642? Probably not. They probably vary from 600 to 900, something like that. And that is the point.

Senator HARKIN. Well, if they vary from 600 to 900, then it would not be a 642 average.

Dr. HARRIS. Could be.

Ms. THOMPSON. Mr. Chairman, I would like to add another element to this dialog if I could. Most of the school food service directors—when we showed them these statistics—were unhappy with all the figures. They all felt that they had too much sodium, regardless of which hot dog.

Senator HARKIN. We are going to hear from the food service directors later on. I really want to get into this a little bit more.

I have to go vote. The only other thing I wanted to ask you was about the preparation. How much of these problems, high sodium and fat, do you identify are tied to the USDA commodities, and how much is due to food preparation or other commodity use?

Ms. THOMPSON. Well, it is difficult to tell. I can only tell you what the food service directors tell me. In our area, most of the food is cooked in the oven; it is not cooked in the deep fryer. Most of this food is cooked the same way, which is why we did not spend a lot of time talking about the differences in the way food is cooked.

I can tell you that the school food service directors believe—they get, in our area, about 25 percent of all the food comes from USDA in one form or another, particularly in hamburger and cheese, because they use so much of it, and particularly because they are using so much of it this year, that it is a USDA problem. They have no control over it; they take what they get, and they serve what they can; and they have to come up with many different ways to serve it. But they cannot get rid of the fat content, and they cannot get rid of the sodium level. That is the way it comes to them.

And that is why—as you heard Dorothy Pannell from Fairfax County say—that is why she is looking to USDA for some guidelines and for some help in bringing these figures down.

Senator HARKIN. Do you think the guidelines are adequate or not?

Ms. THOMPSON. Well, I don't see that the guidelines speak to sodium and fat at all.

Senator HARKIN. I am sorry, but I have to go and vote. I think it has been a good dialog, and I need to look into this further.

We are going to have the witnesses from the American School Food Service Association and a representative from the National Milk Producers Federation. I am going to recess the hearing. We will come back here at 2 o'clock this afternoon.

[Whereupon, at 12:11 p.m., the subcommittee recessed, to reconvene at 2 p.m., the same day.]

AFTERNOON SESSION

Senator HARKIN. The Subcommittee on Nutrition and Investigations will come to order.

As we left off this morning around noontime, we had just heard testimony from the Department and from Ms. Thompson of WRC-TV News regarding the story they had run. This morning we focused much of our attention on the five-part series that WRC had done, and the response of the Department, from the Assistant Secretary of Food and Consumer Services to that five-part series.

The things I heard this morning lead me to believe that we have to do some further investigations into some of the ways that commodities are purchased, how some of these commodities are prepared for USDA bulk purchases, and what happens to them later on.

I can tell you that in my watching a little of the program this morning, and listening to testimony, I have some concerns in this area. I am hopeful that the School Lunch Program is not going to become another fast food service, and that we adhere to the nutritional aspects of hot lunch programs, as I grew up knowing them.

I have known too many school food service people to believe that they are not deeply interested in making sure that the kids get nutritional diets in the School Lunch Program. But if they and the school food administrators are confronted with problems, not of their doing but in taking what's given to them, then I want to hear about that, too.

We have two other witnesses for today. Shirley Watkins, president-elect of the American School Food Service Association, and Mary Klatko, legislative chairperson of the American School Food Service Association. We welcome you to the subcommittee. I assume you have a prepared statement which will be made a part of the record.

You were here this morning. I see Marshall Matz, a resident expert on all these programs, is with you. We welcome you to the subcommittee and ask you to proceed as you so desire. If you want to comment on what was said this morning, please feel free to do so.

Again, welcome to the subcommittee.

STATEMENT OF SHIRLEY WATKINS, DIRECTOR OF FOOD SERVICE, MEMPHIS, TN, CHAIRMAN OF THE AMERICAN SCHOOL FOOD SERVICE ASSOCIATION, ACCOMPANIED BY MARY KLATKO, CHAIRPERSON, PUBLIC POLICY AND LEGISLATIVE COMMITTEE, AND DIRECTOR OF FOOD SERVICE, HOWARD COUNTY, MD

Ms. WATKINS. Thank you very much, Mr. Chairman. I appreciate the opportunity, and I am especially appreciate you allowing us an opportunity to come and share some things with you this afternoon.

Mary Klatko, who is to my right, is Chairman of ASFSA's legislative committee.

I would like to, for the record, enter the prepared statement of the American School Food Service Association.

Senator HARKIN. Without objection, it will be made a part of the record.

Ms. WATKINS. Thank you very much, sir.

[The prepared statement of Ms. Watkins follows:]

TESTIMONY
OF
THE AMERICAN SCHOOL FOOD SERVICE ASSOCIATION
BEFORE THE
COMMITTEE ON AGRICULTURE, NUTRITION AND FORESTRY
UNITED STATES SENATE
MAY 19, 1987

Good morning Mr. Chairman, Members of the Committee. My name is Shirley Watkins; I am the Director of Food Service in Memphis, Tennessee, and the Chairman of the American School Food Service Association (ASFSA) ad hoc task force that has been studying the commodity distribution program. With me today is Mary Klatko, the Chairman of the Public Policy and Legislative Committee, and the Director of Food Service in Howard County, Maryland.

We are delighted to have this opportunity to testify before you this morning and to express our support for S. 305, S. 236, H.R. 1728 and S. 902.

The American School Food Service Association is a nonprofit association of almost 60,000 members. We are the public employees that administer and staff the federal child nutrition programs at the state and local level. Approximately 90,000 schools throughout the country participate in the National School Lunch Program, serving 24 million children a day.

On behalf of ASFSA it is my pleasure to express our strong support for, and endorsement of, S. 305 and S. 236. In our

opinion, it is an extremely important piece of legislation, as it will help us better serve the nation's children.

Mr. Chairman, I think it is safe to say that the legislation before us today would not be considered a "sexy" bill. It will not greatly expand the size of the federal feeding programs; it does not seek an appropriation of funds. Nonetheless, our Association is giving this legislation the highest possible priority.

The USDA Commodity Distribution Program is badly in need of reform. While ASFSA has a policy position in support of the USDA distribution program, I would be less than candid with you if we did not say that there were members within our Association who feel the Commodity Distribution Program is so poorly administered at the federal and state level that it should be abandoned in favor of an alternate system. There have been congressional hearings on the program, a three-year congressionally-mandated USDA pilot study of alternatives to the program, and our Association, working with others outside the Association, have forwarded to USDA extensive recommendations for improving the program.

At the same time, on May 14, 1986 a number of individuals announced the creation of an "Association of Schools for an

Alternative to Commodities (ASAC)". A copy of the application form is attached as a part of our testimony.

With this background in mind, members of the American School Food Service Association had the opportunity to visit with various officials of the Department to discuss the recommendations that were forwarded. One of the observations that we made as a result of the meetings with USDA was that the Commodity Distribution Program did not have the statutory base common to the other food and nutrition programs. Without a proper statutory base, in our opinion, it will be difficult, if not impossible, for the Department to address many of the administrative deficiencies that have been identified, and to assure proper and consistent administration of the program from state to state.

There have been references here today, and in many other forums, to the "shortcomings" of the Commodity Distribution Program. What specifically are we talking about, and what is creating such a fuss?

Simply stated, Mr. Chairman, the Commodity Distribution Program has been run to maximize the agricultural purposes of the program with, at times, almost a complete disregard for the needs of recipient agencies. Commodities arrive in May that must be stored in cold storage all summer long until school opens in September. Commodities will arrive --- sometimes an entire

railcar of commodities --- on 24 or 48 hours notice, which leaves you without any time to arrange for storage. Commodities will arrive out of condition or simply spoiled, and schools do not know what rights they have to exchange the commodities or how to do so. Some states charge local school districts an exorbitant amount of money for the intra-state distribution and handling of commodities; some states do not charge local school districts anything for such services. It is the only federal program that we are aware of which provides over $1 billion in federal support yet does not require a state plan of operation, has no federal performance standards, and generally lets state commodity directors operate with complete autonomy and lack of supervision.

If this Committee and the Congress were to allow the situation to continue, I am afraid that our historical support for the Commodity Distribution Program will simply not be there in the future. We understand that the needs of the recipient agencies must be reconciled with the agricultural purposes of the program. What we object to, Mr. Chairman, is that the agricultural purposes of the program have not been meshed with the needs of the recipient agencies. For too long the mind-set at the Department has been that "beggers cannot be choosy" and that recipient agencies had no right to complain. But school food service directors all over the country are struggling to run nutrition programs as efficiently as possible, with less and less federal resources, and that means that USDA must operate the

Commodity Distribution Program in a more dependable and consistent manner.

Before closing, Mr. Chairman, we would like to express our support for S. 902 and H.R. 1728. As we told the Education and Labor Committee, we support an amendment "grandfathering" for a period of time the 60 school districts that participated in the pilot project established by the 1981 Appropriations bill. This would allow the Secretary to implement the changes contained in S. 305, S. 236 and H.R. 1340 before a final decision is made on these districts.

Mr. Chairman, if appropriate at this time we would like to commend Secretary Lyng for his personal support and for giving this issue the status and prestige of his good offices. One of the challenges we have faced in trying to address the problems mentioned here today, is that the responsibility for the commodity distribution program is spread over the entire Department of Agriculture with different officials having a different piece of the pie. ASCS, AMS and FNS are all key players but yet they report to different USDA officials. When a complaint about a commodity is received by the Food and Nutrition Service, it is not always heard at ASCS. With the Secretary's support, however, and the help of this Committee, we are more optimistic than we have been in many years about finally improving the USDA Commodity Distribution Program.

Again, Mr. Chairman, Members of the Committee, we would like to strongly commend you for the introduction of S. 305 and S. 236. It has our strong and unequivocal support. We urge its speedy consideration and approval by this Committee and the Congress.

We very much appreciate the chance to appear this morning and would be happy to answer any questions that you may have.

ASSOCIATION OF SCHOOLS FOR AN ALTERNATIVE TO COMMODITIES

On May 14th, 1986 the Association of Schools for an Alternative to Commodities (ASAC) was formed to pursue the following goals:

SHORT TERM GOAL:

1. To make Commodity Letter of Credit (CLOC) a permanent option for CLOC and Cash sites

LONG TERM GOALS:

1. To make CLOC an option for all districts at the local level
2. To identify those school district employees who are interested in an alternative to commodity donation for school districts
3. To identify those individuals or organizations other than school district employees who are also interested in furthering the goals of the group
4. To provide the means whereby those mentioned in goals 3 and 4 can work together on mutual problems
5. To work toward the refinement of current CLOC program
6. To demonstrate that the CLOC program can meet the goals of the commodity program
7. To help adapt the current CLOC program to enable it to be used effectively on a nationwide scale as an option
8. To work towards being accepted an an ASFSA Committee.

It you are interested in joining, please complete the attached form and send appropriate dues.

Need more information? Please contact Connie Hevly, Shoreline Schools, 206-361-4207 or Terri Anderson, Longview Schools 206-577-2728.

ASSOCIATION OF SCHOOLS FOR ALTERNATIVES TO COMMODITIES

Application for Active Membership

Name_____ State_____

Position_____

School District_____

Mailing Address_____ HOME ADDRESS:_____

_____ _____

Congressional District Number_____ _____

Time Zone_____

Work Telephone Number ( )_____

Home Telephone Number ( )_____

Hours at work_____AM to _____PM Best time to call_____

District Information:

District Enrollment_____

Type of Service_____

Average Daily Lunch Participation_____

Percentage of Free_____, Reduced_____, Paid_____

Average Daily Breakfast Participation_____

Percentage of Free_____, Reduced_____, Paid_____

Vendors serving your district:

_____

Name Address

_____

Name Address

_____

Name Address

Remit check to: A. Dolores Barnabei, Treasurer
P. O. Box 1759
Victoria, TX 77902

Dues paid$ 25.00

Date_____

Check #_____

Ms. WATKINS. I sat and listened this morning attentively to the dialog and the discussion, and I would like to bring things into focus. This morning was very interesting, and I found it to be a concern which I feel you did, and I know in the last couple of hours you have taken all of that into consideration. I know that as a parent you are very concerned and of course, I see your position—I see you wearing three hats. I might be wrong and if so correct me. You are chairman of the Subcommittee on Nutrition and Investigations; a parent with a child in the Fairfax County Schools, and you are also on the Senate Agriculture Committee.

I see your role pretty much like mine, as an administrator, a policymaker, and I certainly am not a scientist, and I would not like to get into any debate on the scientific issues that were raised this morning. As an administrator, I would like to deal with some things that I know you would like to do; and that's where I come from.

I would like to pull it back together this afternoon and see if we can offer you—I personally would like to offer—some suggestions so that we can put things into the proper perspective.

One, we have a bill that you have introduced, and we want you to know that we are supporting that bill. The significant issue that was addressed this morning in the dietary guidelines is a part of that. We are strongly supportive of that bill. We worked many hours on the task force with the National Frozen Food Association and the American School Food Service Association, and while I served as chairman of that committee, an ad hoc committee for the association, we were able to dig into and look at the issues to the Commodity Distribution Program.

If we can swiftly get that bill passed, I can see us accomplishing some of the things that you would like to do, and I could read that from the spirit of your response this morning.

The other thing that we have in common is an institute idea that has been addressed by the American School Food Service Association; and it would be a training institute. I would just like to bring you up on some things, and I don't know if you are aware or not, and you probably are; you are such a knowledgeable young man.

Senator HARKIN. The real compliment is in the young.

Ms. WATKINS. We have, and depending on whose report you are using, and sometimes that is interesting, the School Food Service Program, the National School Food Lunch Program that is administered by the U.S. Department of Agriculture, has some 90,000 schools across this country. We are the largest restaurant, serving more meals than I would imagine anybody in the world, if you really looked at it carefully.

Yet, while McDonald's has only, something less than 10,000 stores across the country, we are in more schools serving more meals, 24 million meals in a 2-hour span, from 11 a.m. to 1 p.m., depending on where you are in this country. That to me is significant when you compare the fact that McDonald's has a McDonald's University, providing technical assistance to those people who are going to operate those stores.

School food service administrators around this country do not have that kind of technical assistance available to them. The American School Food Service Association, in their vision and in-

sight, has proposed an institute that would deal with technical assistance, in providing training, in providing training for food service employees and providing the nutritional data analysis that you referred to this morning. Working with people on the dietary guidelines; these are the kinds of things we would propose that the institute would do.

We would like to, for the record, submit the article "ASFSA Backs Creation of a New USDA Institute." It is from the School Food Service Journal and I would like to share this with you.

Senator HARKIN. Thank you. It will be made a part of the record.

[The article follows:]

Washington Update

ASFSA Backs Creation of a New USDA Institute

By Marshall Matz

Restaurants and Institutions magazine recently ranked the school food service program as the fifth largest food service business in the country. The size of the program is obvious, yet there is little effort to support it through research, training or management systems on providing cost-effective school meal programs.

To solve this problem, the American School Food Service Association has endorsed the establishment of a U.S. Department of Agriculture School Food Service Institute.

Committed to providing high-quality, cost-effective school meals for the nation's children, ASFSA has pursued legislation and public policy for this purpose. However, the association recognizes that the final responsibility for achieving meal quality and cost-effectiveness goals rests with the local school food service authority. It is there, through daily management, that meal quality and cost ultimately are determined.

Although the federal government has made a substantial commitment to program authorization and funding, it does not provide the research, specialized aid and instruction needed to help schools achieve quality and cost containment goals.

ASFSA believes the federal government should help assist and support this program through the establishment of a national institute dedicated to help meet the growing needs of the school food service industry.

Why a school food service management institute?

The USDA invests more than $4 billion yearly in children nutrition programs that serve 26 million school meals daily. State and local contributions, along with children's payments, make school lunch an $8 billion industry.

In the private sector, any business this size would maintain a strong backup system that would include a management institute of some type. For instance, McDonald's has its "Hamburger U.," and if school food service is to compete in the marketplace, it must operate just as efficiently.

A national school food service management institute could play a major role in meeting this need. It also could become the focal point for coordinating the agricultural and nutritional needs of the program, including the proper use of USDA commodities.

From the perspective of the more than 85,000 schools participating in the National School Lunch Program,

(over)

the institute would be of inestimable value. No single agency or educational institution now is prepared to provide the wide range of information, assistance and training needed to adequately support local school food service program operations. The institution would fill this void.

Simply stated, this institute would assist schools in providing consistently high quality, cost-effective meals to students.

Such assistance would include nutritional studies, activities designed to promote efficiency and specialized training. Additionally, it could serve as a clearing house for relevant information storage and distribution. One of the institute's most obvious merits would be its continuous availability of reliable information about all facets of school food service management.

Areas of interest could include: use of USDA-donated commodities, menu planning, procurement procedures, wise labor, efficient cafeteria design and facilities for other USDA programs.

How would it work?

Based in an institution of higher education, the institute would provide instruction and technical aid on site as well as in other areas. Established, administered and funded by the USDA, estimates predict that an institute with these capabilities would cost approximately $5 million annually. This would be a modest investment to support the $4 billion school lunch and child nutrition programs.

Institutes of this type already are in existence. USDA currently spends more than $36 million on nutrition research. Included in this amount is USDA support for three nutrition research institutes. The USDA Human Nutrition Research Center on Aging at Tufts University will receive $11 million for 1986. The USDA Children's Nutrition Research Center at Baylor College of Medicine will gain $3 million this year. The nutrition research facility at Grand Forks, N.D., which specializes in trace minerals, will receive a $6 million appropriation. These examples set a precedent for a school food service institute.

While ASFSA would not have financial obligations for the institute, it could support it and participate in an advisory role during the planning, development and implementation of the institute's program and services.

Looking ahead

ASFSA intends to again include formation of the institute as part of its next Legislative Issue Paper in 1987. This institute would be one of the positive items on which ASFSA members could work together with USDA to improve school food service programs. ▲

Ms. WATKINS. Thank you.

Our institute would do a lot of things for our people. We have the most committed and dedicated people across this country working in any establishment. People are working hard to try and contend with the 1981 budget cuts. The challenges are feeding children nutritional and good-quality meals. We have good programs across this country; we are doing a good job. We would like to let you know that there are some things we need Federal support for, then there are other things that we are doing without Federal support; and that is the way it should be.

This morning you talked about a handbook and ASFSA is currently working with the American Cancer Society in developing a handbook, a curriculum guide that can be used by the food service professional in training employees in the reduction of sugar, fat, and salt. We are not talking about the elimination of them, but the reduction of them. That is the kind of thing that they are doing. Many school districts throughout the country, including my school district, are currently using NET funds; Nutrition, Education and Training funds, to conduct various kinds of research studies that will help enlighten us as to what some of the needs are.

The School Lunch Program is only providing one-third of the child's daily requirement at lunchtime.

If we are doing that in actuality, and that's what we as food service professionals are doing around this country, certainly we would not be eliminating the significant nutrients for those children.

Senator HARKIN. You say you are supposed to provide one-third?

Ms. WATKINS. We are supposed to provide one-third of the child's daily requirement at lunchtime.

Senator HARKIN. One-third of vitamins, minerals, calories, protein, those things?

Ms. WATKINS. Yes.

Senator HARKIN. Why couldn't it be more than that?

Ms. WATKINS. Mr. Chairman, if you——

Senator HARKIN. Is that just a minimum?

Ms. WATKINS. That's the minimum. Some school districts do provide more. You have various options offered in various school districts depending on the flavor of the community. But I just say that so you understand that we are doing a good job out there, and this just provides us even more information.

If you remember, the NET funds were reduced. We were getting, before 1981, 50 cents per child for Nutrition, Education and Training. We certainly would like to see that restored. Then we can address some of the issues that are pertinent to our children, and to teachers, and to food service employees.

Our operation is a big business. You are talking about something in the neighborhood of $4 billion, and we are trying to administer those programs with what we feel the institute can provide. Right now we are providing limited information, in some segments of this country.

That is not to say that all schools are doing the same thing. There are a lot of things going on across the country to address some of the concerns that you would have, and certainly the bill cannot emphasize that enough; if we can move forward with that

bill to address some of our concerns. Restoring NET moneys at the level of 50 cents per child, and of course, the institute.

I guess I cannot stop at this point without addressing some of the issues that came up this morning. Mary Klatko will address the testimony by the investigative reporter of Channel 4 News.

Ms. KLATKO. Mr. Chairman, our program is not perfect, but that is why we are here today. We are here not to defend the status quo of our program, but rather to seek improvements to the commodity legislation that is before you. The tone and approach used by Channel 4 News left something to be desired.

We are not resentful of any constructive criticism or any ideas of how to make the program better. This morning we heard a debate on the scientific issues of the program; and as Shirley pointed out, we're not scientists, so we will not address that issue. What we are is administrators.

From a perspective of our School Food Service Association, there are several things that we need to tell you concerning our disappointment in the program.

First of all, we were disappointed by the fact that the folks coming in to do this study did not tell our members the purpose of the study. I have a letter from Dorothy VanEgmond-Pannell, who is my friend and colleague in Fairfax County, and she outlines some of her concerns with this program.

She states in her letter to Channel 4 News, specifically to Ms. Lea Thompson, that:

> Your reporters and crew came in under the pretense that you were doing a story on satelliting food. I got cameras into the schools under that pretense. We bent over backwards to accommodate you. I feel badly about how that was disguised.

[The letter can be found on page 151.]

Ms. KLATKO. That is just one of the aspects. On a personal level, I can tell you that I am the chairperson of the National Association's Public Policy and Legislative Committee, and I am also the school food service director in Howard County, MD, approximately a 20-minute ride from here, and a local phone call.

I heard this morning that this program has been in the works for 3 months. I have not been contacted in all of those 3 months. Nor has our National Association's headquarters in Denver, nor our Washington office.

If we had been contacted, we could have put a little bit of balance to the program and we could have told about, one, your bill, two, the national institute that we would like to have for school food service employees, and three, we could have talked about NET funding. I think had we gotten that sort of dialog going, we would have had a more balanced report.

We have very uncomfortable people in the field right now who have seen that program; our school food service employees feel that they have really been let down, that their career and their hard work and their life's goals have somehow taken on an ugly meaning. The program looked like it was going after some sort of a scandal, or that we were doing something wrong; and in fact, that is not what we are doing.

Mr. Chairman, we have weathered many, many storms in the school food service program. We have been through budget cuts,

which have taken away approximately one-third of our funding; we have been through regulatory changes; we have weathered all sorts of changes in our program; and I am here to tell you that our program is strong. We believe it is strong, and we do not feel that there is a level of concern needed that was expressed in that story.

I would like at this point to thank you very much for the opportunity to say these things on record. It is the first time we have had an opportunity to be heard concerning this, and we appreciate it very much.

Ms. WATKINS. Mr. Chairman, we will be glad to answer any questions that you might have.

Senator HARKIN. Well, this is a general statement. As I said, I went over some of these figures this morning with the producer of the program, Ms. Thompson, and with some of the people that were with her from the Center for Science in the Public Interest.

What concerns me is, if, in fact, kids are getting a high-fat, high-sodium lunch, I am bothered by that. I think we all are and ought to be looking for ways in which we could reduce the fat and sodium levels.

I was just looking over this letter from the head of the School Food Service Association in Fairfax County, Dorothy VanEgmond-Pannell. Her letter shows that she is evidently very disappointed in the way that Ms. Thompson presented herself, what they were doing, and the type of program they were doing.

I think she makes a couple mistakes. From what I see, they did analyze the products, and they used comparable samples. They did factor that down, which was something I was concerned about myself.

I see here on the second page of the letter she says:

> The question I have had since yesterday's interview is "What are you out to accomplish?" By doing this project undercover and under pretenses of something else, without the school system's knowledge, you obviously do not mean for this to be a story any of us will be proud of.
>
> How much sodium is in the typical family's meals over the weekend when school lunches are not being served? The problem is not school lunches alone. Sodium and fat have been in this country's diet from the beginning and in far greater amounts than today. School lunch did not establish the norm.

[The letter can be found on page 151.]

Senator HARKIN. I have to tell you, I think Ms. VanEgmond-Pannell completely misses the point in that letter. The point is not how much sodium is in the family meals over the weekend. The point is that the School Lunch Program is supposed to be a nutritious meal that is nutritionally balanced. It should not be high in sodium and in fat. That is why we have that nutrition. It misses the point to say, "Well, we're just going to feed the kids what they have on the weekend." We cannot do that. The letter misses the point.

In the letter: "A story that any of us will be proud of" I cannot look into Ms. Thompson's mind so I do not know why they did the story. What I want to find out is, are our kids in the School Lunch Program getting an undue amount of sodium and fat in meals? If so, what can we, together, do about it?

What I want from you is suggestions.

Ms. WATKINS. Mr. Chairman, I think rather isolated situations were used in the first place. We would have to say perhaps chil-

dren are getting more fat in their diet, and it's not necessarily in the product itself; but as was mentioned this morning, it could be in the preparation of the product, if additional fat is being used in that product.

I think what you will find, many people right now are concerned about the high incidences of hypertension and high blood pressure in young children. Whether they are getting it from the school lunch or whether they are getting it from fast food restaurants; and the information we have, by and large, they have been getting it from fast food restaurants.

I think what you have happening around this country is that people are looking at it closer; they are monitoring specifications and food products that come in; they are testing food products.

In my own system, I currently have an NET grant for $25,000, and we are working with the parents, the children and the teachers on the reduction of sugar, fat, and salt. As we look at that, we are not only looking at our meals and looking at our specifications, but we are also going to manufacturers and asking them to look at the products that you have. Give me the nutritional analysis of your products.

Now in my particular system, I have a nutritional analysis of every product that is received. We also send all of the products that come into my central distribution into a lab to be tested for the different levels, if they exceed what is specified. The manufacturers have been very cooperative with me. I have to say I am getting what I want for the children in Memphis City schools.

I think you have more and more food service directors who are falling into that same kind of a category, and I think we are more cognizant of our operations; we are business people, but we also have to provide a good quality nutritional meal to children; and I think we are consciously looking at it. I just attended a meeting with all of the major city food service directors around this country. That was one of the things we talked about.

The American School Food Service Association will have workshops this summer, and they will be looking at what we can do to work within the dietary guidelines. The new recipe card file that USDA is coming out with this summer is looking at the dietary guidelines. The Dietetic Association has a new cookbook out, so we can use the new cookbook that the Dietetic Association has given, and that simply specifies all of the nutrients, and it targets those items that are high in sodium.

So we are doing things, we are aware, we are looking at it across this country.

There are some things that we need your help on, too.

Senator HARKIN. You will get the help you need. You have got to know that you don't have a stronger supporter of the School Lunch Program than this person sitting right here.

Ms. WATKINS. We recognize that, and we certainly appreciate it.

Senator HARKIN. I want to do what I can to help. I am concerned about some of these standards and would like to go through some of them with you, basically, for the record.

Should we have standards on nutritional content of USDA commodities, and should they be specific standards?

Ms. WATKINS. Sure. We asked for that as we went through the 2-year study, in working with the National Frozen Food Association, and ASFSA. We want specific things. We are asking that they provide us with those food items that will comply with the dietary guidelines.

Senator HARKIN. Should we put those standards in the bills?

Ms. WATKINS. Sure; we agree.

Senator HARKIN. Would you work with us on that?

Ms. WATKINS. Yes, we will certainly work with you.

Senator HARKIN. Good.

Ms. KLATKO. I believe your bill refers to the dietary guidelines, in one section of it.

Senator HARKIN. But those guidelines are very broad, Mary. I am talking about getting down to more specifics than just dietary guidelines. You cover the waterfront with those guidelines.

Should the nutritional standards be a little bit more specific?

Ms. KLATKO. They could be in the regulatory process.

Senator HARKIN. We could give the guidance in the bill and take a look at the regulations that come out.

Ms. WATKINS. Yes; that's right.

Senator HARKIN. Well, I would like to again ask you for your input in that. You are the ones that ought to tell us what should be in those regulations.

Ms. WATKINS. We would be glad to work with you.

Senator HARKIN. I assume that you do represent the local school jurisdictions that were the subject of our discussion this morning?

Ms. KLATKO. Yes.

Ms. WATKINS. Yes, we do.

Senator HARKIN. Can you characterize the reaction of these school districts? Have you talked to any of them? Obviously, I have the one letter here, from Fairfax County. I have to tell you, I am a little disturbed by Miss VanEgmond-Pannell's reaction. She is the director of the school food service program in Fairfax County, but I am disturbed by the fact that she would say, "Well, how much is in the typical family's meal?" And to say, "you obviously do not mean for this to be a story any of us will be proud of." What we are trying to get at is what is in that food.

Ms. WATKINS. Fine. In defense of her, and I want you to know that we want to work with all of our members, and I think that is very important.

One of the things we have to deal with is the total child, and I am sure that is what she is making reference to when you talk about what happens, then, to the child on the weekend. Looking at the total child, which is what our project tends to do, is to look at the total child, focus on the total child, have the parent to understand we're going to do our part at school, but you must also contribute to that. The teacher must also contribute to that; and I think that is what she is leading up to.

Senator HARKIN. I would have to see the whole series again; maybe this represents a personal bias of mine, but I did not read into the story any indictment of the school food service people themselves. It is more an indictment of the salt and fat content of the food that was getting to the kids.

I think a lot about that, and the question I asked this morning was is there more of these items in the products they were getting in the schools than there is at the local level? I think the answer is yes, it was in the supermarket in the products they were getting.

If Ms. Thompson is still here, she can correct me if I am wrong, but I think that was basically her response.

Ms. WATKINS. Well, I think the concern that people, food service directors would have is that you target a couple of products, and you focus, as the perception would be, that this is all these children are getting.

Senator HARKIN. Let me tell you this. My child goes to Fairfax County public schools, and I think they have pizza once a week, maybe twice. They will have pizza, they will have hamburgers and cheeseburgers, but I don't know about hot dogs. And then they have something like tacos. I see the menu for the month, and it's very heavy on foods such as this every week.

For example, I insist that my children have little or no sodium in any of their breakfasts. When you go out shopping for breakfast, many of the breakfast foods are very high in sodium. I insist that they have, well, I am not going to get into brands, but there are certain breakfast cereals you can buy with no sodium. And I use skim milk, I insist that their breakfasts are low in sodium, because I am concerned that they are getting sodium in their lunches. I try to keep their total daily sodium intake down by doing that.

As I said, I am concerned about it. They do eat a lot of pizza. I bet they have pizza once a week, perhaps twice.

Ms. WATKINS. Mr. Chairman, your concern is just like ours, and we want to do something about it.

Senator HARKIN. I know; that is why I said I am preaching to the choir.

Ms. WATKINS. And we would like to do something about it. And I think the bill would address that, along with the institute and coupled with NET.

Senator HARKIN. Again, in looking at the pizza in DC, which is much higher than Fairfax—well. a little bit higher, I guess they put a lot of cheese, which is high in sodium, on it.

I am still going to try to investigate and find out whether or not we have to have all the sodium in the cheese. I was told before we met today that we do, but I am going to take a look at that.

I guess I asked all these questions about how we can help these schools. I think you are saying that we should get some standards in.

What is your reaction to the requirement that schools offer whole milk in addition to low fat milk beginning next school year? As you know, that was put in the bill last year. The bill doesn't mandate that they do, they just have to offer the whole milk.

Ms. WATKINS. I don't think food service directors around the country would be opposed to how the language is structured, as long as they do not have to force children to take whole milk; as long as it is offered, and as long as the language states, "offered," then they can still have low fat milk as a choice.

Senator HARKIN. I understand that is the way the language is. It is offered, not mandated.

Ms. KLATKO. As long as we can still offer low fat milk.

Senator HARKIN. Yes, I hope so.

Ms. WATKINS. They want to make certain that the language says "offer."

Senator HARKIN. You noted in your prepared statement, which we didn't get into here, a number of problems with the distribution program. You talked about getting things in the summer so you have to keep them in cold storage until September. This results in spoilage, exchanging commodities, and other things like this.

Do the bills that we have before us, together with the administrative changes that we recommended to USDA, address these problems completely? What, if anything more, needs to be done? Do we need to put more things in the bills to address these problems?

Ms. WATKINS. All of the issues are covered in S. 305, and we are very comfortable with that statutory base taking care of the concerns that we addressed.

Senator HARKIN. Do you feel an extension of CLOC, or cash-in-lieu of commodities, is warranted?

Ms. WATKINS. We have gone on record as ASFSA stating that we would support the extension of CLOC for those schools that are currently participating, or who participated in the pilot.

Senator HARKIN. The extension of those until when?

Ms. KLATKO. Until 1992.

Senator HARKIN. For 5 years?

Ms. KLATKO. The bill says 1992.

Senator HARKIN. Are there 60 schools involved?

Ms. WATKINS. Students, right.

Senator HARKIN. And so you would say 5 years.

Let me ask you this. I am intrigued by your proposal for an institute; I had talked about that before. I think that is pretty astounding. You say there are 90,000——

Ms. WATKINS. Right. One of the things——

Senator HARKIN [continuing]. And there is no place for school food personnel to go to get this kind of training or anything—nothing at all?

Ms. WATKINS. Nothing.

One of the things we are committed to; all people want to do well.

Senator HARKIN. Tell me about a school food person, maybe the cooks or the administrators themselves, where do you get the cooks?

Ms. WATKINS. Generally the employees are parents of children in neighborhoods or within that general vicinity.

Senator HARKIN. Are they part-time employees?

Ms. WATKINS. Many of them are part-time. Anywhere from 2 to 7 hours; most of the employees around the country work 2 to 7 hours, depending on the needs of that school district.

Senator HARKIN. Off the top of your head, in this area, how many schools still prepare the lunch onsite, and how many do it from central kitchens? Is the central kitchen the norm now?

Ms. WATKINS. No, it is not.

Senator HARKIN. So food is mostly prepared onsite, correct?

Ms. WATKINS. It is still prepared mostly onsite. I am from the Southeast, from Memphis, and greater than one-third of the 60,000

members in ASFSA are in the Southeast, and by and large, all of those school districts are still preparing onsite. Most of your large school districts are still preparing onsite meals.

Senator HARKIN. So you have administrators of the Food Service Association that tend, again, to be parents, right?

Ms. WATKINS. Yes; I am a parent.

Senator HARKIN. Are the cooks part-time people?

Ms. WATKINS. That's right.

Senator HARKIN. But, are they in the local community? What I am getting at is, if we do have some kind of an institute where these people are drawn in, at least on a first time basis, and maybe periodically thereafter, and as long as they are in the preparation of the food, that they learn better nutritional habits and better nutritional guidelines. Then they will pass those on to other people.

I can see a benefit from this, not just to the School Lunch Program, but in the society as a whole. I want to take a look at that. Have you done some runs on how much this might cost and how it could be operated? Do you have any facts on that?

Ms. KLATKO. Yes, Senator. We think that on a pilot basis we would need approximately $500,000 to get it started, just a feasibility study to get it started.

Senator HARKIN. I am amazed that we have not done that. I think the massive size of it would warrant that we have something like that. I would like to work with you on that.

Do you have anything else to add? Otherwise, we will turn to the next witness.

Ms. WATKINS. Thank you very much, and we appreciate your giving us this opportunity.

Senator HARKIN. Thank you very much, and I want to add that I think all of our goals here are to ensure that we have the best possible School Lunch Program that we can have in this country.

Ms. Watkins. We could not agree with you more. Thank you very much.

Senator HARKIN. Finally, we are going to call on James Barr, chief executive officer of the National Milk Producers Federation.

Mr. Barr, it is good to see you. Welcome to the subcommittee. I have your prepared statement, and it will be made a part of the record in its entirety. Please proceed as you so desire. You may either comment on what has been said, or chart new paths, whichever you prefer.

STATEMENT OF JAMES C. BARR, CAE, CHIEF EXECUTIVE OFFICER, NATIONAL MILK PRODUCERS FEDERATION

Mr. BARR. I think, Mr. Chairman, with your permission I will just summarize my statement very briefly, and then respond to any questions that you may have on the prepared statement or on other things that we have covered here this morning.

I do appreciate this opportunity to appear before you this afternoon, on the Commodity Distribution Program.

The National Milk Producers Federation has long supported the child nutrition programs, the elderly nutrition programs and others that are a part of the national nutrition policy. Our active support of the nutrition programs dates back to the 1960's, when

many were first authorized, as the Nation began to confront hunger in America.

The National Milk Producers Federation fully supports the Commodity Distribution Program as an important part of this Nation's national food policy. As one of the companion programs to the agricultural price support mechanisms, to assure adequate food production, the Commodity Distribution Program is the most direct link between the producer and the nutrition programs. Every developed nation, which has stabilized production, finds that in order to avoid food shortages, limited surplus production is inevitable. The Commodity Distribution Program moves our surplus food supply directly to the segment of the population needing food assistance.

As has been pointed out here today, the Commodity Distribution Program has a dual purpose. The first, is the use of the program as a companion to our agricultural price support and stabilization programs for farmers and ranchers.

The second purpose of the program is to move the surplus commodities into our national nutritional programs, and that is why we are here today in support of S. 305 and S. 236.

The Federation does not view the commodity distribution system as a one-way street or, as some would like to say, a dumping ground. We want it to work for the mutual benefit of the producers and the nutrition programs that utilize the food every day in feeding millions of people.

We have been aware that some nutrition program directors have complained about the administration of the program. We are sympathetic. I doubt that any of our cooperatives would appreciate receiving shipments of bulk supplies months after anticipated and long after the product could be fully utilized or economically stored. Schools and other feeding programs are under increasing pressure to be cost-effective and competitive. We respect the directors' need to be professional managers and wish to help implement the many program improvements they have recommended.

This legislation provides the opportunity to improve a beneficial program with little, additional budgetary impact. Under the Dairy Price Support Program, surplus dairy products are purchased and stored by the Government through the Commodity Credit Corporation.

Other agricultural commodities are purchased by the Government through other support mechanisms. Beef, fruits and vegetables, fowl, and other food items are bought on the open market by the Government when prices become soft. Section 32 funding, accrued through tariffs on foreign imports, provide the financial mechanism to buy the products. S. 305 and S. 236 provide an opportunity to improve a program that has well served a dual purpose for many years. It is not often that public policy is effectively joined together for a mutual purpose, but Congress, in its wisdom, created the Commodity Distribution Program and needs to do some fine tuning of the program to improve its administration for the benefit of our nutrition programs.

With that, Mr. Chairman, that completes my formal statement. I will be glad to respond to questions.

[The prepared statement of Mr. Barr follows:]

national milk producers federation

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James C. Barr, CAE
Chief Executive Officer

The National Milk Producers Federation is a national farm commodity organization representing virtually all of the dairy farmer cooperatives and their dairy farmer members who serve this nation by producing and marketing milk in every state in the Union.

Since its inception in 1916, the Federation has actively participated in the development of dairy programs which are a part of a total system of agricultural law and policy which can appropriately be termed a national food policy.

The policies of the Federation are determined by its membership on a basis that assures participation from across the nation. The policy positions expressed by NMPF are thus the only nationwide expression of dairy farmers and their cooperatives on national public policy.

Before the

SUBCOMMITTEE ON NUTRITION

of the

COMMITTEE ON AGRICULTURE
U.S. SENATE

With respect to

S. 305 and 236, the Agricultural Commodity Distribution Act of 1987

May 19, 1987

James C. Barr, CAE
Chief Executive Officer
National Milk Producers Federation

Mr. Chairman, I am Jim Barr, Chief Executive Officer of the National Milk Producers Federation. I appreciate this opportunity to appear before the subcommittee to present testimony on the commodity distribution program.

The National Milk Producers Federation is the national farm commodity organization that represents dairy farmers and the dairy cooperative marketing associations they own and operate throughout the United States.

The bulk of the nation's milk supply is marketed through dairy cooperative marketing associations that farmers have developed to represent them in the market. The marketing activities of these associations range from bargaining for price and other conditions of sale of bulk fluid milk to the production of finished dairy products and the distribution and retail sale of such products to consumers. Virtually every dairy product that is produced in any substantial quantity in the United States is included in the product mix of the cooperatives represented by the Federation.

The National Milk Producers Federation provides the vehicle through which dairy farmers and their cooperative marketing associations formulate policy on national issues which affect their ability to produce and market milk and dairy products. The Federation and its membership seek to establish conditions under which farmers can join together to market their products in stable markets at prices which are reasonable to both producers and consumers. Since its founding in 1916, the Federation has worked with the Congress and the executive agencies to secure the

adoption of laws and the implementation of policies to further these basic goals.

The Federation has long supported the child nutrition programs, the elderly nutrition programs and others that are a part of our national nutrition policy. Our active support of the nutrition programs dates back to the 1960s when many were first authorized as the nation began to confront hunger in America. Farmers of this country realized that the bounty we produced needed to be purchased in commercial sales whenever possible to maintain our prices but that we had an obligation to support programs whereby food to the needy was made possible. Therefore, the Federation has supported creation and funding of these programs for over twenty years.

The National Milk Producers fully supports the commodity distribution program as an important part of this nation's national food policy. As one of the companion programs to the agricultural price support mechanisms to assure adequate food production, the commodity distribution program is the most direct link between the producer and the nutrition programs. Every developed nation which has stabilized production finds that in order to avoid food shortages, limited surplus production is inevitable. The commodity distribution program moves our surplus food supply directly to the segment of the population needing food assistance.

The program is without doubt beneficial to agricultural producers. In 1985, approximately $2 billion worth of food

products, of which about 60% were dairy products, (or $1.2 billion) were contributed to and utilized by the nation's nutrition programs.

On the other side of the equation, America's elderly, children, and needy benefited from the surplus removal programs through receipt of the $2 billion worth of food products for the feeding programs. As for cost-effectiveness, the commodity distribution program efficiently utilizes America's agricultural bounty through the nutrition programs, providing about 20% of their total budget with little cost to their operations.

As has been pointed out here today, the commodity distribution program has a dual purpose. The first, which I've touched on, is the use of the program as a companion to our agricultural price support and stabilization programs for farmers and ranchers.

The second purpose of the program is to move the surplus commodities into our national nutritional programs and that is why we are here today in support of S. 305 and 236.

The Federation does not view the commodity distribution system as a one-way street or, as some would like to say, a dumping ground. We want it to work for the mutual benefit of the producers and the nutrition programs that utilize the food every day in feeding millions of people.

We have been aware that some nutrition program directors have complained about the administration of the program. We are sympathetic. I doubt that any of our cooperatives would

appreciate receiving shipments of bulk supplies months after anticipated and long after the product could be fully utilized or economically stored. Schools and other feeding programs are under increasing pressure to be cost-effective and competitive. We respect the directors' need to be professional managers and wish to help implement the many program improvements they have recommended.

The timeliness and advance notice of the shipment of the commodities is but one of the many concerns program directors have expressed and are, therefore, addressed in S. 305 and 236. The long list of commodity and farm organizations that support these changes reflect our desire to make sure the program is not a one-way street.

This legislation provides the opportunity to improve a beneficial program with little, additional budgetary impact. Under the dairy price support program, surplus dairy products are purchased and stored by the government through the Commodity Credit Corporation. While dairy price support program purchases have declined dramatically in calendar year 1986 and will continue to fall in 1987 due to the whole-herd buyout program, there will still be product available for the traditional nutrition programs. As we've pointed out to you, Mr. Chairman, there is some question about dairy product availability for TEFAP in 1988.

Other agricultural commodities are purchased by the government through other support mechanisms. Beef, fruits and

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vegetables, fowl, and other food-stuffs are bought on the open market by the government when prices become soft. Section 32 funding, accrued through tariffs on foreign imports, provide the financial mechanism to buy the products.

Before concluding my statement, Mr. Chairman, I would like to touch on the issue of dietary guidelines. We actively supported removal of the reference to dietary guidelines in H.R. 1340 because we are working to improve the process of review and documentation of these guidelines in different legislation. We prefer not to tie the nutrition programs to the current process and institutionalize the guidelines in one more government program. We are working with other organizations to define who is at risk and should be concerned about particular guidance versus creating an understanding that about 75 percent of the population is not at risk and should follow the common sense approach of eating a "balanced" diet, one that includes all four basic food groups.

S. 305 and 236 provide an opportunity to improve a program that has well served a dual purpose for many years. It is not often that public policy is effectively joined together for a mutual purpose, but Congress in its wisdom created the commodity distribution program and needs to do some fine tuning of the program to improve its administration for the benefit of our nutrition programs.

Thank you for the opportunity to express the support of the National Milk Producers Federation for S. 305 and 236. I would be happy to respond to questions.

Senator HARKIN. Thank you very much, Mr. Barr.

Let me just ask you, one of the removals by the Government is non-fat dry milk, is that right?

Mr. BARR. That is correct.

Senator HARKIN. Do our schools use a lot of non-fat dry milk?

Mr. BARR. Schools use a lot of non-fat dry milk as well, as was indicated this morning, a lot of cheese.

Senator HARKIN. The school uses these products in food preparation?

Mr. BARR. That's right.

Senator HARKIN. Is the non-fat dry milk that they purchase very high in its sodium content?

Mr. BARR. I can give you the exact figure. One cup of milk contains about 120 milligrams of sodium. So I would assume——

Senator HARKIN. Is that whole milk?

Mr. BARR [continuing]. That would be whole milk, and I assume that nonfat would contain approximately the same amount of sodium. To give you some idea, that is about the same amount of sodium in one cup of cooked, fresh spinach, and only about two-thirds of the amount of sodium in one slice of whole wheat bread, to give you some comparison about the amount of sodium we are referring to.

Senator HARKIN. One cup of milk contains 120 milligrams of sodium.

Mr. BARR. That's correct.

Senator HARKIN. Again, what did that compare to?

Mr. BARR. That compares to the amount of sodium in one cup of cooked fresh spinach, and about two-thirds of the amount of sodium in one slice of whole wheat bread.

Senator HARKIN. So it does not do anything to the sodium content when you remove the fat from the milk, correct?

Mr. BARR. I would not think so, no, sir.

Senator HARKIN. How about cheese? I am going to get more into why there is so much sodium in cheese. I was told before, by a representative of the cheese industry, that they have to add sodium to make the product stick together. I am wondering, does cheese necessarily have to be high in sodium?

Mr. BARR. Well, the main reason, and we have a representative from the Cheese Institute here who is probably better qualified to respond to that than I am, but the main reason for the use of salt in the manufacture of cheese is that it removes the moisture from the cheese, in order to have a proper amount of moisture that the Department of Agriculture requires under FDA standards of identity.

So the main reason for the use of salt is to remove the moisture from the whey. In talking to our members, there are other processes that could be used to remove the moisture from the cheese, but then that becomes a matter of cost effectiveness. I cannot really tell you exactly what the increased cost of changing the process would be. I could provide that for the record. But as I understand it, the main reason for not using other processes is basically one of cost.

Senator HARKIN. I am going to have to look into that some more.

Well, is it like butter, and we also salt butter?

Mr. BARR. Yes, that is basically a matter of taste preference. We have low-salt butter——

Senator HARKIN. So, the salt does not make butter last longer or anything like that?

Mr. BARR. No, sir. It is a matter of taste; you have low-salt butter and you have unsalted butter, and that is a matter of preference.

Senator HARKIN. But the USDA removes salted butter.

Mr. BARR. Yes.

Senator HARKIN. It has to be salted before the USDA——

Mr. BARR. That is my understanding, yes.

Senator HARKIN. And that butter is also provided to the School Lunch Program; is it not?

Mr. BARR. They will buy unsalted butter; I was just corrected. They will buy unsalted butter.

Senator HARKIN. I was informed that the USDA only removed salted butter.

Mr. BARR. That's correct, but they will buy unsalted butter.

Senator HARKIN. Oh, they will buy it.

Let me ask you about your position on the nutritional content of USDA commodities provided to the School Lunch Program. I have asked the same question of everyone here. Should we have standards, and should these standards be specific?

Mr. BARR. Well, I believe there are some standards already in existence. I happen to have a publication, supplement, volume 40, No. 2, August 1984, presented by "the American Journal of Clinical Nutrition." It is a study done on the School Lunch Program from 1979 to 1983, and it involved 6,500 students and their parents.

I would like to submit this for the record because it is a very complete and clinical look at the School Lunch Program and the amount of nutrition that the students received through the School Lunch Program. It is my understanding it also looks, as Ms. Watkins said, at the total child.

Senator HARKIN. Who did this study?

Mr. BARR. This is from the publication, "the American Journal of Clinical Nutrition." It points out, for example, that from dairy products alone in the School Lunch Program, the student receives about 56 to 67 percent of calcium needs, about 35 to 45 percent of the B_{12} vitamin needs, about 35 to 42 percent of the riboflavin needs, 33 to 42 percent of their phosphorous requirements, and 20 percent or more of magnesium, vitamin A and protein; and that is simply from the dairy products contained in the School Lunch Program.

Senator HARKIN. We will make reference to this study in the record.

[The publication, "the American Journal of Clinical Nutrition," official journal of the American Society for Clinical Nutrition, Inc., is retained in the subcommittee's file.]

Mr. BARR. I do have a fact sheet, Senator, that abbreviates and summarizes some of the information contained in the publication.

Senator HARKIN. We will put this fact sheet in the record, but we will only refer to this study in the record, since it is a Department of Agriculture publication; correct?

Mr. BARR. No; I think that was done by "the American Journal for Clinical Nutrition;" which I don't believe is a USDA-affiliated organization.

Senator HARKIN. The American Society for Clinical Nutrition; we can make reference to that.

[The fact sheet follows:]

Fact Sheet

National Milk Producers Federation

1840 Wilson Blvd ■ Arlington VA 22201 (703) 243-6111

National School Lunch Program (NSLP)

Purpose

The purpose of the National School Lunch Program is to provide nutritional lunches and to educate children during the formative years about good food practices. The NSLP is a joint venture of the Federal government, State government, local communities, schools, children and their parents.

History

1935 -- Federal assistance in the form of a distribution of surplus foods was given to schools for use in free lunches. 1943 -- USDA provided cash reimbursements to schools to partially cover the cost of foods purchased locally through regular commercial channels.

1946 -- on June 4, the **National School Lunch Act** was passed by Congress as an effort to safeguard the health and well-being of the nation's children, to encourage the domestic consumption of nutritious agricultural commodities and other food by assisting the States through grants-in-aid and other means, assist in providing an adequate supply of foods and other facilities for the establishment, maintenance, operation and expansion of nonprofit school lunch programs.

1966 -- passage of the Child Nutrition Act to further strengthen and expand the NSLP.

1970 -- Public Law (PL) 91-248 providing greater assistance to needy children by assuring every child from a low income home the right to have a meal at school.

School Year 1985 - over 3.9 billion meals served

Nutritional Value of School Lunches

The National Evaluation of School Nutrition Programs (NESNP) was conducted from 1979 to 1983 and involved over 6500 students and their parents. Results were published in a supplement to the American Journal of Clinical Nutrition, August 1984.

Results: School lunch participants at all income levels obtained more of almost all nutrients examined, both at lunch and during a 24 hour period, than non-participants. The superior intakes of participants reflected the higher nutritional quality of lunches provided by the National School Lunch Program as compared to those consumed by non-participants.

The NESNP clearly showed that the school nutrition program is effectively fulfilling its goals of: 1. Safeguarding the health and well being of the nation's children by providing nutritious food, and 2. Supporting American farmers by increasing the consumption of domestic agricultural products.

Nutritional Contribution of Dairy Products (excluding butter) for Children Age 6 - 18

Nutrient	% Supplied
Calcium	56 - 67%
B12	35 - 45%
Riboflavin	35 - 42%
Phosphorus	33 - 42%
Magnesium, Vitamin A, and Protein	20% or over

Fat Content

One cup of whole milk contains 8 grams of fat: one ounce of cheddar cheese, about 9 grams. This is about the same amount as is found in one tablespoon of salad dressing.

Dairy products, excluding butter, accounted for less than 12% of fat available for consumption in the United States in 1982.

Sodium Content

One cup of milk contains about 120 milligrams of sodium. This is about the same amount found in one cup of cooked, fresh spinach and only about 2/3 the amount in one slice of whole wheat bread.

Low Fat Diets in Children

Recommendations for fat-modified diets in healthy children remain controversial, as such diets have not been proven to alter the incidence of coronary heart disease later in life. Low fat diets for children are not recommended by the American Academy of Pediatrics.

Preference for Whole Milk

In one recent study, 86% of Junior and Senior High students preferred whole over lowfat and skim milk. Students who chose skim drank less milk and subsequently would have consumed less of the nutrients present in milk.

Both whole milk and lowfat are offered under the NSLP.

Use of the Term "Nutritious"

Foods should be viewed with regard to their overall nutrient profile and their contribution to the overall dietary pattern. It is inaccurate and misleading to categorize foods as "nutritious" solely on the basis of fat or sodium content.

Senator HARKIN. In terms of having guidelines and standards, we now have broad guidelines that could be made more strict. You have heard the school lunch people say that they would favor that.

Mr. BARR. There is certainly nothing that we would add in addition to what the school lunch people would favor with respect to creating standards that they would like to achieve in the School Lunch Program. We do not support extending the dietary guidelines themselves into the program; but if the school lunch people have some standards that they believe, minimum requirements that need to be met through the school lunch program, I would suspect that we would support that.

Senator HARKIN. I have just been informed that we have to be out of the room by 3 o'clock. I wanted to get the individual from the Cheese Institute up here and talk about cheese, but I guess we will have to do that at another time.

[The Cheese Institute statement can be found on pages 278 to 280.]

Senator HARKIN. Do you have anything else you wanted to add?

Mr. BARR. I think that covers everything I wanted to say, Senator.

Senator HARKIN. Thank you very much.

This will conclude our hearing today. It is my intention that we will hold further hearings on this issue in the future, and take some action on the legislation before us.

I think it is clear that we do have some problems in the distribution sense, that the American School Food Service Association has talked about, and that we have to address. I think we are also going to have to address the issue of the standards and guidelines. And we can take a look at this whole issue of the sodium and fat content of foods in the School Lunch Program.

I hope and trust that the School Lunch Program will not become competitive with the fast food business. I know that kids want to go out and have McDonald's food and meals like that. I'm sure there is a great amount of push by the kids. When asked, "What would you like to see? What would you like to have?" As this one kid said, "I like the pizza, and I like the hot dogs, and I like the chicken nuggets and things like that."

But I do not think that is what we ought to give out. When my children come home and I ask, what do you want for a snack, they say, candy; I say, "I'm sorry, you can't have candy. You've got to have some fruit" or something like that.

We are in the business of providing a nutritional, well-balanced meal at noontime, and we should not just becomc another fast food business in competition with McDonald's or Hardee's or someplace like that.

I am much intrigued by the notion of an institute where people can go to learn and study and be sent back to the local school districts better equipped to adhere to nutritional standards and to prepare the food in a nutritional way for the student.

The School Lunch Program has served us well for a long time. I remember when I was a child first starting school, out in the middle of nowhere in Iowa, the school lunch was a great thing. For many students that's the only real meal of the day they get. I feel it has really done so much in the past to bring students' education-

al standards up and make sure they can adequately study and learn during the schoolday. I don't want to see anything happen that would jeopardize the program in any way.

It is a great program. Obviously, as society changes, we need to change and strengthen it. I think we have heard some good suggestions here, and this subcommittee intends to move ahead, aggressively, this year to correct some of the problems. We want to make sure we address the problems of distribution, removal, and dietary guidelines. We welcome all input, from all the different groups, and we will see how we can strengthen the program and make it even better in the future.

Having said that, the subcommittee will stand in recess, subject to the call of the Chair.

[Whereupon, at 3:00 p.m., the subcommittee adjourned, subject to the call of the Chair.]

[Material submitted for the record follows:]

II

Calendar No. 261

100TH CONGRESS
1ST SESSION

S. 305

[Report No. 100–127]

To amend the National School Lunch Act to improve the administration of the commodity distribution program, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JANUARY 13, 1987

Mr. LEAHY (for himself, Mr. FORD, Mr. ADAMS, Mr. DECONCINI, Mr. DOLE, Mr. HARKIN, Mr. MELCHER, Mr. LUGAR, Mr. BOSCHWITZ, Mr. PRYOR, Mr. COCHRAN, Mr. DASCHLE, Mr. CONRAD, Mr. WILSON, Mr. BOND, Mr. MCCONNELL, Mr. BREAUX, Mr. DANFORTH, Mr. MCCLURE, Mr. GORE, and Mr. BINGAMAN) introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

JULY 28 (legislative day, JUNE 23), 1987

Reported by Mr. LEAHY, with an amendment and an amendment to the title

[Strike out all after the enacting clause and insert the part printed in italic]

A BILL

To amend the National School Lunch Act to improve the administration of the commodity distribution program, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Commodity Distribution Program Reform Act of 1987".

SEC. 2. FINDINGS AND DECLARATION OF POLICY.

(a) FINDINGS.—Congress finds that—

(1) the Secretary of Agriculture currently distributes various foods and agricultural commodities to Federal, State, and private agencies for use in schools, child care institutions, nonprofit summer camps for children, charitable institutions, correctional institutions, nutrition programs for the elderly, other eligible recipient agencies, and for the assistance of needy persons;

(2) the distribution of various foods and commodities by the Secretary is authorized by a variety of laws, including section 32 of the Act entitled "An Act to amend the Agricultural Adjustment Act, and for other purposes" (7 U.S.C. 612c), section 4(a) of the Agriculture and Consumer Protection Act of 1973 (7 U.S.C. 612c note), section 416 of the Agricultural Act of 1949 (7 U.S.C. 1431), sections 6 and 17(b) of the National School Lunch Act (42 U.S.C. 1755 and 1766(b)), section 311 of the Older Americans Act of 1965 (42 U.S.C. 5179), and section 409 of the Disaster Relief Act of 1965 (42 U.S.C. 3030a);

~~(3) the distribution of commodities authorized by such laws is an important part of the mission of the Secretary; and~~

~~(4) the distribution of commodities is inextricably linked to the agricultural support programs administered by the Secretary.~~

~~(b) DECLARATION OF POLICY.—It is the policy of Congress—~~

~~(1) to support the commodity distribution program as an effective means to remove surplus commodities;~~

~~(2) to provide nutritional high quality foods to recipient agencies for the assistance of needy persons;~~

~~(3) to improve the program in accordance with the findings of the "Evaluation of Alternatives to Commodity Donation in the National School Lunch Programs", and other recommendations for improvement in the administration of the commodity distribution program; and~~

~~(4) to adopt such policies as are necessary to make the commodity distribution program more efficient and responsive to the eligible recipient institutions and needy persons relying on the program.~~

~~SEC. 3. COMMODITY DISTRIBUTION PROGRAM REFORMS.~~

~~Section 14 of the National School Lunch Act (42 U.S.C. 1762a) (as amended by section 4403 of the Child Nu-~~

trition Amendments of 1986 (Public Law 99-661)) is amended by adding at the end thereof the following new subsections:

"(h)(1) The Secretary shall develop specifications for commodities distributed by the Department of Agriculture that will assure products of the quality, size, and form that is most useful to eligible recipient agencies, taking into account the duty of the Secretary to remove surplus stocks of the Commodity Credit Corporation.

"(2) The Secretary shall, to the extent practicable, make food items available in optional package sizes and forms.

"(3) The Secretary shall make available the product specifications to State agencies and eligible recipient agencies.

"(4) The Secretary shall develop and implement an ongoing field testing program for present and anticipated commodity purchases to test product acceptability with program participants. Test results shall be taken into consideration in deciding which commodities, and in what form those commodities, should be provided to recipient agencies.

"(i) Food items and commodities distributed by the Secretary shall, to the maximum extent practical, be consistent with the dietary guidelines published by the Secretary of Agriculture and the Secretary of Health and Human Services.

"(j)(1) Commodities distributed to eligible recipient agencies that are not found to be in good condition shall be replaced. On receiving a commodity that is not in good condition, a recipient agency shall expeditiously notify the State agency of such condition. The State agency shall take all necessary steps to ensure that such commodity is expeditiously replaced.

"(2) The Secretary shall establish procedures governing the handling of commodity items that are not in good condition when received by recipient agencies.

"(3) The Secretary shall establish a system to monitor the age and condition of commodities that are stored by the Secretary, to assure acceptable quality.

"(k)(1) The Secretary shall establish schedules for the distribution of commodities and products consistent with the needs of eligible recipient agencies, taking into account the duty of the Secretary to remove surplus stocks of the Commodity Credit Corporation.

"(2) The Secretary shall monitor the delivery systems used by State agencies and require State agencies to implement an effective delivery system for the intrastate delivery of donated commodities and products. The Secretary shall establish a value of donated commodities and products to be used by State agencies in the allocation or charging of commodities against entitlements.

"(l) The Secretary shall distribute to all recipient agencies suggested recipes for the use of donated commodities and products. Such recipe cards shall be updated on a regular basis to take into consideration changes in the dietary guidelines and the commodities that are distributed.

"(m) The Secretary shall issue such regulations as are necessary to carry out this section, including regulations concerning—

"(1) approval of reasonable intrastate fees that are charged local recipient agencies;

"(2) performance standards;

"(3) procedures for commodity allocations;

"(4) delivery schedules; and

"(5) procedures for local recipient agencies to return commodities delivered not in conformity with product specifications of the Secretary.

"(n) The Secretary shall take such actions as are necessary to assure that regional offices of the Department of Agriculture interpret policies and regulations uniformly across the United States.".

SEC. 4. EFFECTIVE DATE.

This Act, and the amendment made by this Act, shall become effective July 1, 1987.

SECTION 1. SHORT TITLE.

This Act may be cited as the "Commodity Distribution Reform Act of 1987".

SEC. 2. SENSE OF CONGRESS.

(a) DISTRIBUTION OF AGRICULTURAL COMMODITIES.—It is the sense of Congress that the distribution of commodities and products—

(1) should be improved as an effective means of removing agricultural surpluses from the market and providing nutritious high quality foods to recipient agencies for assistance to needy persons; and

(2) is inextricably linked to the agricultural support and surplus removal programs administered by the Secretary of Agriculture and is an important mission of the Secretary.

(b) COMMODITY DISTRIBUTION PROGRAMS.—It is the sense of Congress that the Secretary of Agriculture should—

(1) adopt such policies and rules as are necessary to make the commodity distribution programs administered by the Secretary more efficient and responsive to eligible recipient institutions and the needy persons relying on the programs; and

(2) improve the quality of the commodities so distributed and the manner in which the commodities are distributed.

SEC. 3. COMMODITY PROCESSING EXTENSION.

(a) IN GENERAL.—Section 1114(a)(2)(A) of the Agriculture and Food Act of 1981 (7 U.S.C. 1431e(2)(A)) is amended by striking out "1987" and inserting in lieu thereof "1989.".

(b) CONFORMING AMENDMENTS.—

(1) Section 4404 of the Child Nutrition Amendments of 1986 (Public Law 99–661) is amended by striking out "In" and inserting in lieu thereof "Effective through June 30, 1989, in".

(2) Section 364 of the School Lunch and Child Nutrition Amendments of 1986 (Public Laws 99–500 and 99–591) is repealed.

SEC. 4. COMMODITY DISTRIBUTION PROGRAM REFORMS.

(a) APPLICATION.—This section shall apply to—

(1) the commodity distribution and commodity supplemental food programs established under sections 4(a) and 5 of the Agriculture and Consumer Protection Act of 1973 (7 U.S.C. 612c note);

(2) the program established under section 4(b) of the Food Stamp Act of 1977 (7 U.S.C. 2013(b));

(3) the school lunch, commodity distribution, and child care food programs established under sections 6, 14, and 17 of the National School Lunch Act (42 U.S.C. 1755, 1762a, and 1766);

(4) the school breakfast program established under section 4 of the Child Nutrition Act of 1966 (42 U.S.C. 1773);

(5) the donation of surplus commodities to provide nutrition services under section 311 of the Older Americans Act of 1965 (42 U.S.C. 3030a); and

(6) to the extent practicable—

(A) the temporary emergency food assistance program established under the Temporary Emergency Food Assistance Act of 1983 (7 U.S.C. 612c note); and

(B) programs under which food is donated to charitable institutions.

(b) QUALITY AND FORM OF COMMODITIES AND PRODUCTS.—

(1) DEVELOPMENT OF SPECIFICATIONS.—The Secretary of Agriculture (hereinafter in this section referred to as the "Secretary") shall develop specifications for commodities and products that are distributed by the Secretary that ensure that the commodities and products are of a quality, size, and form that is most useful to eligible recipient agencies, taking into account the duty of the Secretary—

(A) to remove surplus stocks of agricultural commodities through the Commodity Credit Corporation; and

(B) to purchase surplus agricultural commodities through section 32 of the Act entitled "An Act to amend the Agricultural Adjustment Act, and for other purposes", approved August 24, 1935 (7 U.S.C. 612c).

(2) OPTIONAL SIZES AND FORMS.—The Secretary shall, to the maximum extent practicable, make the commodities and products available in optional package sizes and forms.

(3) AVAILABILITY OF SPECIFICATIONS.—The Secretary shall make available summaries of the specifications for the commodities and products to State agencies.

(4) TESTING FOR ACCEPTABILITY.—The Secretary shall establish an ongoing field testing program for present and anticipated commodity and product purchases to test product acceptability with program participants. Test results shall be taken into consideration in deciding which commodities and products, and in what form the commodities and products, should be provided to recipient agencies.

(c) DIETARY GUIDELINES.—Commodities and products that are distributed by the Secretary shall, to the maximum extent practicable, be consistent with the Dietary Guidelines for Americans published by the Secretary of Agriculture and the Secretary of Health and Human Services.

(d) COMMODITIES AND PRODUCTS THAT ARE NOT IN GOOD CONDITION.—

(1) REPLACEMENT.—Commodities and products that are distributed to eligible recipient agencies and are found not to be in good condition shall be replaced under procedures established by the Secretary. On receiving a commodity or product that is not in good condition, a recipient agency shall expeditiously notify the State agency of the condition. The State agency shall take appropriate steps to ensure that the commodity or product is expeditiously replaced.

(2) PROCEDURES.—The Secretary shall establish procedures governing the handling of commodities and products that are not in good condition when received by recipient agencies.

(3) MONITORING SYSTEM.—The Secretary shall establish a system to monitor the age and condition of commodities and products that are stored by the Secretary, to ensure acceptable quality.

(e) DISTRIBUTION AND DELIVERY.—

(1) DISTRIBUTION SCHEDULES.—The Secretary shall establish schedules, to the maximum extent practicable, for the distribution of commodities and products that are consistent with the needs of eligible recipient agencies, taking into account the duty of the Secretary—

(A) to remove surplus stocks of agricultural commodities through the Commodity Credit Corporation; and

(B) to purchase surplus agricultural commodities through section 32 of the Act entitled "An Act to amend the Agricultural Adjustment Act, and for other purposes", approved August 24, 1935 (7 U.S.C. 612c).

(2) DELIVERY SYSTEMS.—The Secretary shall monitor the delivery systems used by State agencies, and require State agencies to implement an effective delivery system, for the intrastate delivery of donated commodities and products. The Secretary shall establish a value for donated commodities and products to be used by State agencies in the allocation or charging of commodities against entitlements.

(f) RECIPES.—

(1) IN GENERAL.—The Secretary shall distribute to all recipient agencies suggested recipes for the use of donated commodities and products.

(2) DISTRIBUTION.—The recipe cards shall be distributed as soon as practicable after the date of enactment of this Act and updated on a regular basis.

(g) IMPLEMENTATION.—

(1) REGULATIONS.—Not later than 9 months after date of enactment of this Act, the Secretary shall issue such regulations as are necessary to carry out this section, including regulations concerning—

(A) reasonable intrastate fees if such fees are charged to local recipient agencies;

(B) minimum performance standards to be followed by State agencies responsible for intrastate distribution of donated commodities and products;

(C) procedures for commodity allocations among the States;

(D) delivery schedules; and

(E) procedures for local recipient agencies to return commodities and products delivered that are stale, spoiled, or similarly not in conformity with the product specifications of the Secretary.

(2) UNIFORM INTERPRETATION.—The Secretary shall take such actions as are necessary to ensure that regional offices of the Department of Agriculture interpret uniformly across the United States policies and regulations issued to implement this section.

SEC. 5. EXTENSION OF ELIGIBILITY OF CERTAIN SCHOOL DISTRICTS TO RECEIVE CASH OR COMMODITY LETTERS OF CREDIT ASSISTANCE FOR SCHOOL LUNCH PROGRAMS.

(a) IN GENERAL.—Section 1581(b) of the Food Security Act of 1985 (Public Law 99–198; 99 Stat. 1594) is amended by striking out "1987" and inserting in lieu thereof "1989".

(b) CONFORMING AMENDMENT.—Section 14(g)(2) of the National School Lunch Act (42 U.S.C. 1762(g)(2)) is amended by striking out "In" and inserting in lieu thereof "Effective through the school year ending June 30, 1989, in".

SEC. 6. COSTS FOR NUTRITION SERVICES AND ADMINISTRATION.

(a) IN GENERAL.—Section 17(h) of the Child Nutrition Act of 1966 (42 U.S.C. 1786(h)) is amended by adding at the end thereof the following new paragraph:

"(5)(A) In addition to the amounts otherwise made available under paragraphs (1) and (2), each State agency

may use 10 percent of the savings (as defined in subparagraph (C)) for the costs of nutrition services and administration of the State agency and local agencies associated with increases in the number of persons served. In the case of a State agency that instituted a competitive bidding or rebate system before the date of enactment of this paragraph, the State agency may use savings under this subparagraph only if the use of the savings does not result in a reduction in the number of persons served in the State.

"(B) In addition to the amounts otherwise made available under paragraphs (1) and (2) and subparagraph (A), each State agency may use up to 10 percent of the savings (as defined in subparagraph (C)) for the costs of nutrition services and administration of the State agency and local agencies to the extent that the additional expenditures are related to increases in the number of persons served due to an increased availability of supplemental food assistance. The Secretary shall issue rules to implement this subparagraph that take into account—

"(i) the types of persons to be served and the per participant costs for nutrition services and administration in the State;

"(ii) incremental costs per participant of nutrition services and administration associated with serving an increased number of persons;

"(iii) amounts allocated and reallocated under paragraphs (1) and (2); and

"(iv) other factors considered appropriate to further efficient and effective administration, such as staffing needs, density of population, utilization of existing facilities and equipment, and other special circumstances that severely restrict the fiscal capacity of the State (such as a State economic crisis).

"(C) As determined under procedures developed by the Secretary, the savings specified under subparagraphs (A) and (B) shall be—

"(i) the amount of funds realized by a State agency as the result of a rebate system; or

"(ii) in the case of a direct distribution or home delivery system, the difference, in any fiscal year, between—

"(I) the total cost to the State agency of obtaining and providing one or more of the supplemental foods under any competitive bidding system under which a State or local agency contracts for the purchase of supplemental foods and products at reduced prices; and

"(II) the total cost that would have been incurred in obtaining and providing such supplemental foods based on an average Statewide retail

price, as measured by price surveys conducted by the State agency or other means approved by the Secretary.

"(D) Paragraphs (3) and (4) shall apply to funds expended under this paragraph.".

(b) EFFECTIVE DATE.—The amendment made by subsection (a) shall become effective and implemented on the first day of the first quarter beginning 180 days after the date of enactment of this Act.

SEC. 7. COORDINATION OF WIC PROGRAM WITH MEDICAID COUNSELING.

Section 17(f)(1)(C)(iii) of the Child Nutrition Act of 1966 (42 U.S.C. 1786(f)(1)(C)(iii)) is amended by striking out "and maternal and child health care programs" and inserting in lieu thereof "maternal and child health care, and medicaid programs".

SEC. 8. STUDY OF MEDICAID SAVINGS FOR NEWBORNS FROM WIC PROGRAM.

(a) STUDY.—The Secretary of Agriculture shall conduct a national study of savings in the amount of assistance provided to families with newborns under State plans for medical assistance approved under title XIX of the Social Security Act (42 U.S.C. 1396 et seq.) and State indigent health care programs, during the first 60-day period after birth, as the result of the participation of mothers of newborns

before birth in the special supplemental food program authorized under section 17 of the Child Nutrition Act of 1966 (42 U.S.C. 1786).

(b) REPORT.—Not later than February 1, 1990, the Secretary shall submit to Congress a report that describes the results of the study conducted under subsection (a).

(c) FUNDING.—This section shall be carried out using funds made available under section 17(g)(3) of the Child Nutrition Act of 1966.

SEC. 9. EFFECTIVE DATE.

Except as otherwise provided in this Act, this Act and the amendments made by this Act shall become effective on July 1, 1987.

Amend the title so as to read: "A bill to improve the administration of commodity distribution programs, and for other purposes.".

II

100TH CONGRESS
1ST SESSION

S. 236

To amend the National School Lunch Act to improve the administration of the commodity distribution program, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JANUARY 6, 1987

Mr. DOLE (for himself, Mr. COCHRAN, Mr. HELMS, Mr. BOSCHWITZ, Mr. LUGAR, Mr. WILSON, and Mr. MCCONNELL) introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

---

A BILL

To amend the National School Lunch Act to improve the administration of the commodity distribution program, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Commodity Distribution Program Reform Act of 1987".

SEC. 2. FINDINGS AND DECLARATION OF POLICY.

(a) FINDINGS.—Congress finds that—

(1) the Secretary of Agriculture currently distributes various foods and agricultural commodities to Fed-

eral, State, and private agencies for use in schools, child care institutions, nonprofit summer camps for children, charitable institutions, correctional institutions, nutrition programs for the elderly, other eligible recipient agencies, and for the assistance of needy persons;

(2) the distribution of various foods and commodities by the Secretary is authorized by a variety of laws, including section 32 of the Act entitled "An Act to amend the Agricultural Adjustment Act, and for other purposes" (7 U.S.C. 612c), section 4(a) of the Agriculture and Consumer Protection Act of 1973 (7 U.S.C. 612c note), section 416 of the Agricultural Act of 1949 (7 U.S.C. 1431), sections 6 and 17(b) of the National School Lunch Act (42 U.S.C. 1755 and 1766(b)), section 311 of the Older Americans Act of 1965 (42 U.S.C. 5179), and section 409 of the Disaster Relief Act of 1965 (42 U.S.C. 3030a);

(3) the distribution of commodities authorized by such laws is an important part of the mission of the Secretary of Agriculture; and

(4) the distribution of commodities is inextricably linked to the agricultural support programs administered by the Secretary.

(b) DECLARATION OF POLICY.—It is the policy of Congress—

(1) to support the commodity distribution program as an effective means to remove surplus commodities;

(2) to provide nutritional high quality foods to recipient agencies for the assistance of needy persons;

(3) to improve the program in accordance with the findings of the "Evaluation of Alternatives to Commodity Donation in the National School Lunch Programs", and other recommendations for improvement in the administration of the commodity distribution program; and

(4) to adopt such policies as are necessary to make the commodity distribution program more efficient and responsive to the eligible recipient institutions and needy persons relying on the program.

SEC. 3. COMMODITY DISTRIBUTION PROGRAM REFORMS.

Section 14 of the National School Lunch Act (42 U.S.C. 1762a) (as amended by section 4403 of the Child Nutrition Amendments of 1986 (Public Law 99-661)) is amended by adding at the end thereof the following new subsections:

"(h)(1) The Secretary shall develop specifications for commodities distributed by the Department of Agriculture that will assure products of the quality, size, and form that is

most useful to eligible recipient agencies, taking into account the duty of the Secretary to remove surplus stocks of the Commodity Credit Corporation.

"(2) The Secretary shall, to the extent practicable, make food items available in optional package sizes and forms.

"(3) The Secretary shall make available the product specifications to State agencies and eligible recipient agencies.

"(4) The Secretary shall develop and implement an ongoing field testing program for present and anticipated commodity purchases to test product acceptability with program participants. Test results shall be taken into consideration in deciding which commodities, and in what form those commodities, should be provided to recipient agencies.

"(i) Food items and commodities distributed by the Secretary shall, to the maximum extent practical, be consistent with the dietary guidelines published by the Secretary of Agriculture and the Secretary of Health and Human Services.

"(j)(1) Commodities distributed to eligible recipient agencies that are not found to be in good condition shall be replaced. On receiving a commodity that is not in good condition, a recipient agency shall expeditiously notify the State agency of such condition. The State agency shall take all

necessary steps to ensure that such commodity is expeditiously replaced.

"(2) The Secretary shall establish procedures governing the handling of commodity items that are not in good condition when received by recipient agencies.

"(3) The Secretary shall establish a system to monitor the age and condition of commodities that are stored by the Secretary, to assure acceptable quality.

"(k)(1) The Secretary shall establish schedules for the distribution of commodities and products consistent with the needs of eligible recipient agencies, taking into account the duty of the Secretary to remove surplus stocks of the Commodity Credit Corporation.

"(2) The Secretary shall monitor the delivery systems used by State agencies and require State agencies to implement an effective delivery system for the intrastate delivery of donated commodities and products. The Secretary shall establish a value of donated commodities and products to be used by State agencies in the allocation or charging of commodities against entitlements.

"(l) The Secretary shall distribute to all recipient agencies suggested recipes for the use of donated commodities and products. Such recipe cards shall be updated on a regular basis to take into consideration changes in the dietary guidelines and the commodities that are distributed.

"(m) The Secretary shall issue such regulations as are necessary to carry out this section, including regulations concerning—

"(1) approval of reasonable intrastate fees that are charged local recipient agencies;

"(2) performance standards;

"(3) procedures for commodity allocations;

"(4) delivery schedules; and

"(5) procedures for local recipient agencies to return commodities delivered not in conformity with product specifications of the Secretary.

"(n) The Secretary shall take such actions as are necessary to assure that regional offices of the Department of Agriculture interpret policies and regulations uniformly across the United States.".

SEC. 4. EFFECTIVE DATE.

This Act, and the amendment made by this Act, shall become effective July 1, 1987.

II

100TH CONGRESS
1ST SESSION

S. 902

To amend the Food Security Act of 1985 and the National School Lunch Act to extend to 1992 the eligibility of certain school districts to receive alternative forms of assistance for school lunch programs and to amend the Agriculture and Food Act of 1981, the Child Nutrition Amendments of 1986, and the School Lunch Child Nutrition Amendments of 1986 to extend to 1992 the national donated commodity processing program.

IN THE SENATE OF THE UNITED STATES

APRIL 2 (legislative day, MARCH 30), 1987

Mr. MCCLURE (for himself, Mr. ADAMS, Mr. MITCHELL, Mr. DANFORTH, Mr. HEINZ, Mr. THURMOND, Mr. EVANS, and Mr. SPECTOR) introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

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A BILL

To amend the Food Security Act of 1985 and the National School Lunch Act to extend to 1992 the eligibility of certain school districts to receive alternative forms of assistance for school lunch programs and to amend the Agriculture and Food Act of 1981, the Child Nutrition Amendments of 1986, and the School Lunch Child Nutrition Amendments of 1986 to extend to 1992 the national donated commodity processing program.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. EXTENSION TO 1992 OF ELIGIBILITY OF CERTAIN SCHOOL DISTRICTS TO RECEIVE CASH OR COMMODITY LETTER OF CREDIT ASSISTANCE FOR SCHOOL LUNCH PROGRAMS.

(a) Subsection (b) of section 1581 of the Food Security Act of 1985 (Public Law 99–198, 99 Stat. 1594) is amended by striking out "June 30, 1987," and inserting in lieu thereof "June 30, 1992".

(b) Section 14 of the National School Lunch Act (42 U.S.C. 1762a) is amended in subsection (g)(2) by inserting after "the Secretary shall permit" the following: ", effective through the school year ending June 30, 1992,".

SEC. 2. EXTENSION TO 1992 OF NATIONAL DONATED COMMODITY PROCESSING PROGRAMS.

(a) Subparagraph (A) of section 1114(a)(2) of the Agriculture and Food Act of 1981 (7 U.S.C. 1431e(a)(2)) is amended by striking out "June 30, 1987," and inserting in lieu thereof "June 30, 1992".

(b) Section 4404 of the Child Nutrition Amendments of 1986 (Public Law 99–661) and section 364 of the School Lunch and Child Nutrition Amendments of 1986 (Public Law 99–591) are each amended by inserting after "the Agriculture and Food Act of 1981 (7 U.S.C. 1431e(a)(2))" the following: "and effective through June 30, 1992".

II

100TH CONGRESS
1ST SESSION

H. R. 1728

IN THE SENATE OF THE UNITED STATES

APRIL 8 (legislative day, MARCH 30), 1987

Received; read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

AN ACT

To amend the National School Lunch Act to provide for limited extension of alternative means of providing assistance under the school lunch program.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Section 18 of the National School Lunch Act (42 U.S.C. 1769) is amended by adding at the end the following new subsection:

"(e)(1) Upon request to the Secretary, any school district that on January 1, 1987, was receiving all cash payments or all letters of credit in lieu of entitlement commodities for its school lunch program shall receive all cash payments or all letters of credit in lieu of entitlement

commodities for its school lunch program for each school year ending before July 1, 1992.

"(2) Any school district that elects under paragraph (1) to receive all cash payments or all letters of credit in lieu of entitlement commodities for its school lunch program shall receive bonus commodities in the same manner as if such school district was receiving all entitlement commodities for its school lunch program.".

Passed the House of Representatives April 7, 1987.

Attest: DONNALD K. ANDERSON,

Clerk.

THE NATIONAL GRANGE

WRITTEN STATEMENT BY
THE NATIONAL GRANGE

SUBMITTED TO THE
SUBCOMMITTEE ON NUTRITION AND INVESTIGATIONS
OF THE
SENATE AGRICULTURE COMMITTEE

MAY 19, 1987

RE: IMPROVEMENTS TO THE COMMODITY DISTRIBUTION PROGRAM

Family Farm Organization Serving Rural America

THE NATIONAL GRANGE, 1616 H STREET, N.W. WASHINGTON, D.C. 20006

Mr. Chairman, members of the Subcommittee, the National Grange is pleased to submit our thoughts on the current commodity distribution program and ways to improve that program. The National Grange, headquartered in Washington, D.C., was founded in 1867 and, today, represents approximately 400,000 members in 41 states. Our concerns with the economy and structure of rural America are the bases for our involvement with this program.

The original purpose of the commodity distribution program was to remove surplus commodities from the marketplace to benefit the agricultural producer and stabilize prices. The government was forced to find a home for the product, causing the program to be a "push" type of program. Today, we are looking at legislation that will make it more of a "push-pull" relationship.

In the past couple of years, a few members of Congress have investigated a new program called the Commodity Letter of Credit (CLOC) to replace the current program. We have in the past been opposed to the CLOC and continue to be opposed to it today. However, we do realize there is a need to recognize the concerns of the end user, creating a program that not only benefits agriculture, but is responsive to the needs of the customer as well.

The major problem that the Grange sees with CLOC is its lack of specificity; the requirements for purchase are too broad. Allow us to share a few examples.

1) If there is a market bunching problem with peaches in the Southeast and Mid-Atlantic states during harvest in June and July, the current program would allow the Department to buy 30 or 40 loads of peaches to solve the time specific and product specific problem. The CLOC program would allow a school district to buy

canned cling peaches later in the fall. This purchase 2 or 3 months later does not help the correct market nor does it happen at the right time.

2) If the egg laying industry has a problem selling spent hens, the USDA can buy spent hens under the current program. If the letter of credit for chicken was used to buy broilers, no relief would be given to the spent hen dilemma.

3) In the situation of a year round product such as beef, the Department becomes the residual claimant of the product. A beef packer/processor sells as much product as demanded by his customer. Then to stabilize the price to the beef industry, the government buys the packer/processor's excess capacity. This time specific, commodity specific, location specific purchase could not be made with the letter of credit.

4) Further, the CLOC cannot monitor import usage. The current program must buy domestically produced commodities so that domestic producers receive the benefit of Section 32 surplus funds. Under the CLOC program, a school district may buy Campbells soup which contains Mexican tomatoes or Spanish tomato paste, while the current program would assure that American tomatoes were used in tomato soup and tomato paste purchased for distribution.

The Department has recognized there is a problem with the current program and is moving forward on corrections. In fact, Secretary Lyng has made a commitment to use his newly appointed Blue Ribbon Committee to improve the program.

Even with this commitment, however, we believe that S. 236 or S. 305 is necessary to continue Departmental efficiency and to provide authority where the Department is currently lacking such authority. The problem is there are areas where different levels of government are involved and one level has no authority over the other. The performance standards of the legislation will help.

Particularly, we believe the packaging size portion of the bill is important. The easier the product is to handle and the more useful the product is, the more willing the consumer will be to use the product. The other important part of the bills is the delivery time specifications. It is vital for scheduling that the end user know when the product will be delivered. Therefore, we highly recommend the use of the "delivery period" instead of the "shipping period". The delivery perioc is more convenient to the user and the switch will be easier as the use of trucks replace the use of trains. In fact, the Department has indicated they are making this change.

One other recommendation this Subcommittee may wish to consider is using the USDA for assistance in state operations. With the expertise in a variety of areas, the Department could provide operational assistance to each state to improve their system rather than simply writing rules and regulations without the ability of hands-on-teaching. This could be similar to the efficiency training McDonalds provides for each franchise.

Mr. Chairman, we must maintain the current program for commodity distribution so that the program meets the original goal of agricultural assistance. At the same time, however, we must be sure the right product gets to the right place at the right time in the right condition and at the right price.

United Fresh Fruit and Vegetable Association

727 North Washington Street, Alexandria, VA 22314

703/836-3410
Telex: 510 101-2401

TESTIMONY

of the

UNITED FRESH FRUIT AND VEGETABLE ASSOCIATION

on

The Commodity Distribution Program

before the

Subcommittee on Nutrition and Investigations

Committee on Agriculture, Nutrition and Forestry

U.S. Senate

Washington, D.C.

May 19, 1987

Submitted By:

Sharon E. Bomer
Director, Government Relations
United Fresh Fruit and Vegetable Association
727 North Washington Street
Alexandria, Virginia

The United Fresh Fruit and Vegetable Association (United) is pleased to take this opportunity to testify on the Commodity Distribution Program.

United is the national trade association for the fresh produce industry. The 2,500 member companies include growers/shippers, brokers, wholesalers, retailers and affiliated industries. Over 80 percent of the fresh produce commercially sold in the United States is handled by United members.

The commodity donation program was initiated as a result of the Agricultural Adjustment Act of 1949. The basis of the program is to utilize commodities which are removed from the marketplace to stabilize prices. The commodities are donated to the National School Lunch Program, Summer Food Service Program, Child Care Food Program, Temporary Emergency Food Assistance Program, and other important nutrition feeding programs. Fresh produce commodities donated under the program include: baking potatoes, white potatoes, apples, d'anjou and bosc pears, walnuts, and almonds.

There has been a steady increase in USDA donated fresh produce -- FY 1984: $4.758 million (13.163 million lbs); FY 1985: $7.063 million (16.782 million lbs.); and FY 1986: $7.856 million (25.052 million lbs.). Although these amounts may not be large in proportion to the entire commodity distribution program, they are important to the producers of those commodities ensuring a reasonable price on the open market.

Stabilization of market prices is vital to sustain incomes for farmers. One of the major benefits to the fresh produce industry of government purchases of excess commodities is the timing and location of the removals. Because of the perishable nature and the supply/demand economy of these products, it is vital to the stability of prices to remove specific sizes of produce at specific times of the harvest season and in geographically sensitive areas.

Part of the debate which has surrounded the efficacy of the current commodity distribution program focused on the utilization of commodities by the schools. As a result, a pilot project was conducted beginning in 1981 to examine the possibility of using either a commodity letter of credit (CLOC) or cash in lieu of commodity (CASH) to replace the actual distribution of commodities. A member of the United staff served as an advisor on that project.

Although the report concludes that CLOC, CASH and the commodity donation could equally serve the producers and end user, it fails to take into account a major facet of growing and harvesting of fresh fruits and vegetables. The report does not account for the importance of removing fresh produce from the market in a particular geographical region, at a specific period of time, nor by the size of the commodity. The geographical, timeliness and fruit size of the removals are the greatest factors in stabilizing market prices.

Neither CLOC nor CASH can regulate removals of commodity by where the produce is grown, its size or the timing of the removal. For this reason, United strongly opposes any efforts to institute the CLOC or CASH programs. United is strongly opposed to any language which would allow recipient agencies the option of the Commodity Letter of Credit (CLOC). In addition to providing an unnecessary encumberance on USDA by requiring that they operate two programs, CLOC fails to meet the needs of the agricultural community which is the primary purpose of the commodity distribution program. CLOC fails to provide that the recipient agencies will buy U.S. products.

United realizes, however, that there are weaknesses in the current commodity donation program. H.R. 1340, as reported by the House Subcommittee on Domestic Marketing, Consumer Relations and Nutrition, would correct some of those ineffeciencies by providing food that more adequately meets the needs of the schools in quality, package sizes, form, nutrition, and distribution. United hopes that these improvements would strengthen the current program and avoid attempts to expand or continue the CLOC and CASH pilot projects. At the same time, flexibility must be provided to the U.S. Department of Agriculture to insure that the commodity distribution program meets the needs of the agricultural community and the school foodservice community.

For the fruit, vegetable and nut industry, the only mechanism to remove excess commodities and stabilize prices is the current commodity distribution program.

United congratulates this committee on taking such prompt action on this important program.

United would be pleased to respond to any questions.

NASAFDD
National Association of State Agencies for Food Distribution

Washington Office:
P.O. Box 3838
Fairfax, Virginia 22038
(703) 631-3282

May 18, 1987

Mr. Bob Andros
Office of Senator Harkin
317 Hart Building
Washington, D.C. 20510-1502

Dear Mr. Andros:

The National Association of State Agencies for Food Distribution represents the state government agencies responsible for distributing USDA donated foods to eligible institutions, primarily schools.

The Association opposes S.902 which would extend the Commodity Letter of Credit (CLOC) pilot project sites for five years. The CLOC alternative to the food distribution program lacks the accountability and support for agriculture that we believe Congress intends for the program. For your reference, enclosed is our position paper which details why we have these concerns for the CLOC alternative.

Our specific opposition to the extension of the CLOC pilot project sites is founded in the duplicative administration required. Our state members' must handle the pilot project CLOC sites with different paperwork and computer processing. This requires additional staff time and data processing resources which could be better used to improve services for all recipient agencies rather than just a few. Since the pilot project has been completed for several years now, there is no need for, or benefit to the overall program by continuing the pilot project sites.

Sincerely,

Patricia Phillips

Patricia Lynn Phillips
Washington Representative

cc: Lou Smith, President

NASAFD
National Association of State Agencies for Food Distribution

Washington Office:
P.O. Box 3838
Fairfax, Virginia 22038
(703) 631-3282

Introduction

The National Association of State Agencies for Food Distribution is composed of the various state agencies responsible for distributing USDA donated foods to schools, child care programs, nutrition programs for the elderly and the Temporary Emergency Food Assistance Program (TEFAP). Schools receive approximately 85% of the foods USDA purchases for domestic feeding programs. Therefore, school foodservices are our members' main constituency.

Issue

NASAFD is concerned that legislation to implement a Commodity Letter of Credit, in lieu of USDA purchasing foods, will be introduced in the either the House or the Senate sometime during the 100th congress.

The National Frozen Food Association and the American School Food Service Association entered into a Memorandum of Understanding on July 25, 1985 to jointly oppose any additional reductions in federal financial support for the National School Lunch Program and to fully discuss options to the USDA commodity distribution program.

The result was an ad hoc committee with members from both organizations. The committee developed a list of 20 recommendations to USDA to improve the food distribution program. It also included an ultimatum that significant progress be made in implementing the recommendations within 16 months (concluding July 1, 1987) or ASFSA would work to promote legislation for Commodity Letter of Credit as a state option.

Background

USDA was directed to study alternatives to the federal system of distributing agricultural surpluses to school lunch programs in the 1981 Agriculture Appropriations bill. Two alternatives to the food assistance were tested in a nationally representative study of 96 school districts; one giving school systems cash and the other issuing letters of credit.

The commodity letters of credit are vouchers issued for generic food categories. For example, a CLOC for beef could be used to purchase any cut of beef or any product containing beef. A CLOC can only be used to pay for the portion of the finished product cost directly attributable to the generic food item being supported.

The study was concluded in 1985 and USDA interpreted the results to indicate that "No change in the basic system is warranted". Proponents of the CLOC alternative take exception to the study results, based on specific examples, rather than finding fault with the methodology.

NASAFD Opposes an Optional Implementation of CLOC

As we understand the intent of CLOC proponents, an optional CLOC system at the state or local level would not include dairy, honey or grain products which the Commodity Credit Corporation has in storage. Distribution would still be necessary for these foods. This would result in a pared down distribution program simultaneous with CLOC.

The results of a dual system would be:

1. Increased administrative costs for an additional program.

2. Increased costs for distributing donated foods to those states or individual school districts opting to remain with the Food Distribution Program. While unskilled labor (required to transport, store and distribute foods) would decline, overhead for such activities would remain at about the same level. The decrease of foods moved would reduce the economies of scale, increasing the cost of moving a case of donated food.

3. If an entire state or the majority of schools in a state opted for the CLOC system, it may become impractical to continue to offer donated foods to Child Care Food Programs and Nutrition Programs for the Elderly.

4. It is a USDA policy for donated foods to be available during times of disaster, when food is not available through normal channels of distribution. The CLOC system is designed to increase efficiency through the use of normal commercial food distribution channels. Therefore, CLOC could not provide food in disaster situations when it is unavailable through normal commercial means.

It will be extremely difficult for USDA regional and state staff to monitor and audit a letter of credit system, especially when there is an emphasis on increased accountability of all federal programs.

There is a dual purpose to the food distribution program: 1) to support domestic agriculture through timely purchases of surplus foods and 2) to provide food assistance to child nutrition programs. While the CLOC system was designed to fulfill both purposes, NASAFD believes it lacks the integrity of the current system to support domestic agriculture:

1. Domestic origin of products cannot be guaranteed or monitored. School districts using CLOC in the alternatives study included domestic origin clauses in their purchasing contracts and bid specifications. However, imported products which have been further processed are not always identifiable. Additionally, once the food is purchased and consumed there is no means for USDA or other authorities to verify that products were of domestic origin.

2. One of the advantages of CLOC is the flexibility to purchase finished products such as pizza or meatballs. The earmarked cash can only be used to pay for the portion of product costs attributed to the commodity being supported. Only a portion of pizza product costs can be attributed to the flour in the crust or the tomatoes in the sauce. The CLOC system has no accountable means to verify the product's commodity content.

3. The Commodity Letters of Credit are written for generic food categories such as "chicken" or "peaches". They do not provide for a specific variety which is in surplus to be removed from the market such as freestone versus cling peaches.

4. There is also doubt as to whether a large number of individual school districts can have the same market effect of one large purchase by USDA, responding quickly to market needs.

Summary

It can be argued that the Food Distribution Program stresses the agricultural purpose to the detriment of the end users of the donated food. Conversely, the CLOC system would overemphasize serving the end users to the detriment of the agriculture support goal. USDA should bring the dual purpose into balance, making some compromises to better serve the end users and maintain the agricultural purpose. NASAFD is convinced that legislation such as H.R. 1340, S.236 and S.305 help to accomplish that goal.

Testimony of

Edward M. Cooney

Deputy Director

Food Research and Action Center

before the Subcommittee on
Nutrition and Investigations

Committee on Agriculture, Nutrition and Forestry

United States Senate

Submitted for the record of the

Hearing on the Commodity Distribution Program

May 19, 1987

Submitted on May 28, 1987

Senator Harkin. Thank you for the opportunity of presenting this written testimony for the record. My name is Edward Cooney and I am the Deputy Director of the Food Research and Action Center here in Washington. FRAC, as we are commonly called, is an organization that works to alleviate hunger and poverty in the United States. We support S.305, which seeks to amend the National School Lunch Act and to improve the administration of the commodity distribution program. Indeed, we believe that several provisions of S.305 are of such merit that the provisions ought to be extended to recipients of the Temporary Emergency Food Assistance Program, the Native American Food Distribution Program, the Commodity Supplemental Food Program, and to participants in the Older Americans Act program.

Among the stated purposes of S.305 are:

(1) to adopt such policies as are necessary to make the commodity distribution program more efficient and responsive to the eligible recipient institutions and needy persons relying on the program; and

(2) to provide nutritional high quality foods to recipient agencies for the assistance of needy persons.

S.305 would accomplish purpose one by requiring the Secretary of Agriculture to develop specifications for USDA commodities that will assure products of the quality, size, and form most usable to eligible recipient agencies; by requiring that the Secretary, to the extent practicable, make food items available in optional package sizes and forms; and by requiring

the Secretary to establish delivery schedules for the distribution of commodities and products that are consistent with the needs of eligible recipient agencies. If these requirements become law, the support for the commodity distribution program will not deteriorate and low-income Americans will continue to benefit from our surplus of nutritious commodities. The changes and improvements should be applied to all recipients, including participants in the programs cited in the first paragraph of our testimony.

A second purpose of S.305, providing nutritional high quality foods, will be achieved by a provision which requires that food items and commodities distributed by the Secretary, to the maximum extent practicable, be consistent with the Dietary Guidelines published by the Secretary of Agriculture and the Secretary of Health and Human Services. We believe that U.S.D.A. commodities can and should be brought into general compliance with the Dietary Guidelines which call for lower consumption of high fat and high sodium foods and increased consumption of a wider variety of fruits, vegetables and whole grains.

Well over a year ago the American School Food Service Association and other allied organizations made a series of recommendations to USDA to improve the Commodity Distribution Program. These recommendations included a direction to USDA to develop tighter and more stringent specifications to be utilized by USDA when purchasing processed items and to develop purchasing and processing policies more consistent with the dietary

guidelines and meal pattern requirements. USDA was requested to take specific actions which included:

a) Providing nutrient content information which includes the identification of the amounts of fat, sugar and salt contained in all commodities, raw and processed.

b) Revising product specifications, especially those for processed commodities, to comply with dietary guideline recommendations for lower sugar, salt and fat.

c) Providing local schools with processed food specifications for purpose of monitoring quality and assisting with menu planning:

d) Providing local schools with information regarding suggested use of commodities.

The Dietary Guidelines enjoy wide acceptance by the American public. If the general public cannot rely on USDA commodities and food items to be as nutritious and healthful as possible with at least the good faith step toward adherence to these very broad dietary guidelines, then support for the commodity distribution program will quickly evaporate.

We stress this point because the House companion to S.305, H.R.1340, the Agricultural Commodity Distribution Act of 1987, as reported out of the House Agriculture Subcommittee on Nutrition, strikes the language requiring that commodities be consistent

with USDA and HHS Dietary Guidelines to the maximum extent practicable. We believe that this is a major step backwards in nutrition policy and will frustrate activities by FRAC, countless parents and health professionals, the American School Food Service Association, the National Cancer Institute and the American Cancer Society to bring meals served to millions of American school children into compliance with the Dietary Guidelines. School food service workers can do their part by changing the way meals are planned and prepared and by setting standards for the foods they purchase commercially for school lunches, in order to reduce fat, sugar and sodium. But school food service workers have no control over the commodities themselves. If sodium and fat levels and other nutrition-related components of USDA commodities are not periodically reviewed and brought into general compliance with the Dietary Guidelines, to the maximum extent practicable, it makes it difficult for school food service personnel to serve healthful meals and for parents and administrators to defend school nutrition programs as nutritionally sound. This is particularly important for low-income children, who rely on the National School Lunch Program for anywhere from one-third to one-half of their total daily nutrient intake.

FRAC strongly supports the stated policy of Congress in 1946 for the National School Lunch Program:

"It is the policy of Congress, as a measure

of national security, to safeguard the health and well-being of the nation's children and to encourage the domestic consumption of nutritious agriculture commodities and other food to establish, maintain, operate and expand nonprofit school lunch programs."

We therefore have serious concerns about H.R. 1340 as reported out of the Subcommittee in the House, and urge this Subcommittee to maintain its current language requiring USDA commodities, to the maximum extent practicable, to be consistent with the Dietary Guidelines. Further we strongly recommend extending the benefits of S.305 to recipients of TEFAP, the Native American Food Distribution, Commodity Supplemental Food, and Older Americans Act programs.

Mr. Chairman, at your hearing on S.305 on May 19, 1987 you specifically requested comments from witnesses on USDA's request for comments on a possible withdrawal of the requirement for offering low fat milk as part of each school lunch. FRAC strongly opposes such a withdrawal as contrary to sound nutrition principles, and we have attached our comment letter to USDA for your review.

FRAC
FOOD RESEARCH AND ACTION CENTER

February 27, 1987

Lou Pastura
Chief, Policy and Program Development Branch
Child Nutrition Division
Food and Nutrition Service
United States Department of Agriculture
Alexandria, VA 22302

Dear Mr. Pastura:

This letter is in response to the National School Lunch Program Revision of Regulations, interim rule with request for comments, published in the Federal Register, volume 51, No. 189, September 30, 1986, pages 34864 - 34895.

We applaud the Department's retention of the requirement that schools continue to offer unflavored lowfat milk, skim milk or buttermilk as a beverage. As stated in the preamble to this interim rule, this requirement is in keeping with the "Dietary Guidelines for Americans," and offers children a healthful choice.

We also strongly support the reinstatement of the definition of poor student acceptance under Section 210.18 (paragraph (c)), Monitoring Responsibilities. We believe that, as pointed out in USDA's preamble to the rule, this language will ensure that minimum standards of program responsiveness to student acceptance will be met. It gives everyone involved a beginning "handle" with which to measure student acceptance.

We are concerned, however, about Section 210.10(b), Lunch Components and Quantities. We believe that this method of accountability will lead to underproduction in many cases, causing schools to provide many students with smaller lunches or to run out of food before all children are served. Anyone who has experience in operating a lunch program knows the near impossibility of maintaining food production at a 100% accuracy factor. We feel this is an unrealistic and potentially detrimental change in the regulations.

Thank you for taking our comments into consideration.

Sincerely,

Lynn Parker

Lynn Parker
Director, Nutrition
Policy and Research

LP:as

1319 F STREET, N.W. #500 • WASHINGTON, D.C. 20004 • (202) 393-5060

Before The

Senate Committee on Agriculture, Nutrition and Forestry

Subcommittee on Nutrition

Comments of the

AMERICAN HEART ASSOCIATION

on the

National School Lunch Program

May 27, 1987

The American Heart Association respectfully submits the following comments regarding the nutritional quality of food served through the National School Lunch Program.

Founded in 1924 by a group of cardiologists who wanted to share and disseminate knowledge and information about a then undeveloped field -- cardiovascular medicine -- the American Heart Association is the only voluntary agency in the United States devoting all of its human and financial resources to one goal: the reduction of premature death and disability caused by heart attack, stroke and other blood vessel diseases.

Some within the American Heart Association have long promoted the hypothesis that cardiovascular disease and diet are intrinsically related. As early as 1957, in a report submitted to the American Heart Association, a group led by Dr. Irvine H. Page concluded that: 1) diet may play an important role in the pathogenesis of atherosclerosis; 2) the fat content and total calories of the diet may be the dominant contributing factor; and 3) the type of fat, or the balance between saturated and certain unsaturated fats, may also be important.

Subsequent research has supported the observations of this farsighted group of scientists. We now know that diet, and in particular one's consumption of fat, cholesterol and sodium, significantly contributes to one's risk of cardiovascular disease. Such knowledge has encouraged various health organizations, like the American Heart Association, as well as the federal government, to recommend that Americans restrict their consumption of fat, cholesterol, and sodium.

I. CARDIOVASCULAR DISEASE IN THE UNITED STATES

A. Manifestations of Cardiovascular Disease

The most common form of cardiovascular disease is atherosclerosis, otherwise known as hardening of the arteries. This coronary artery disease is the result of an accumulation of fat, cholesterol, fibrin (a clotting material found in the blood), cellular waste products, and calcium on the inner walls of the body's arteries. The build-up of these substances causes the arteries to harden and constrict.

Once the arteries are hardened and narrowed, blood flow is made more difficult. A serious danger then arises: it is easier for a clot to form that may block an artery and thereby shut-off blood flow to the heart, brain, or other organs. If complete blockage occurs in a coronary artery, heart attack occurs. Complete blockage in a vessel to the brain results in stroke.

Atherosclerosis appears to be the culmination of a life-long process that begins in early childhood. It is a complex disease that thousands of medical researchers continue to study. Though all of its causes remain unknown, a link has been established between the amount of cholesterol in the bloodstream and coronary artery disease.

Another form of cardiovascular disease is hypertension, or high blood pressure. The term "blood pressure" is a reflection of the amount of force blood exerts against the walls of arteries and veins. Generally, high blood pressure is defined as systolic pressure greater than or equal to 140 and/or diastolic pressure greater than or equal to 90. (Systolic pressure is the pressure exerted against the arteries at the moment of heart beat, while diastolic pressure reflects the amount of pressure exerted against the artery walls between heart beats).

A high blood pressure reading indicates that the heart is working harder than normal in order to meet the oxygen needs of the body. When the heart is forced to work harder over an extended period of time, it may become enlarged. Once enlargement takes place, the heart must work even harder to pump blood throughout the body. Overexertion by the heart muscle may lead to heart attack. In addition, because elevated blood pressure can hasten the process of scarring and hardening of the arteries, hypertension is a contributing factor to atherosclerosis as well as a major risk factor for stroke.

Hypertension is commonly thought of as a disease of the middle to older age groups. Unfortunately, it now affects children too. For many, simple dietary modifications can minimize the risk of this disease.

B. Incidence of Cardiovascular Disease

Heart disease, stroke, and related disorders account for nearly as many deaths as all other causes combined. Almost one of every two Americans dies of cardiovascular disease. In 1984, heart and blood vessel diseases killed nearly one million Americans, almost as many deaths as were recorded from cancer, accidents, pneumonia, influenza, etc., combined.

Of the current United States population, over 63 million, or one of every four Americans, suffer from some form of cardiovascular disease. As a result, enormous costs are exacted upon our society. A 1979 Surgeon General's report, Healthy People, found that heart disease is the greatest cause of permanent disability claims among workers under age 65, and responsible for more days of hospitalization than any other single disorder. The Surgeon General further noted that cardiovascular disease is the principle cause of limited activity for some 2.5 million Americans under age 65.

Atherosclerosis was the leading cause of the 695,400 heart attack and stroke deaths that occurred in 1984. Unfortunately, 50 percent of middle-age Americans have serum cholesterol levels that exceed 200 milligrams/deciliter, placing them in a zone of increased risk of developing atherosclerosis or other cardiovascular disease. About 27 million adults have an elevated serum cholesterol level that exceeds 260 milligrams/deciliter, placing them in a zone of high risk of developing cardiovascular disease.

An analysis conducted by the Department of Health and Human Services during 1976-1980 (the National Health and Nutrition Examination Survey), revealed that women over 54 years of age, regardless of race, had the highest

prevalence of elevated serum cholesterol levels. The prevalence was higher for individuals above poverty than for those below poverty among males age 35 years and older and females age 55 years and older. However, prevalence did not differ significantly by race.

Hypertension was responsible for an estimated 30,600 deaths in 1984. Yet, the disease is far more pervasive than the mortality statistics suggest. Approximately 57.7 million American adults have high blood pressure or are being treated for hypertension by a physician. Among adults aged 45-64, it is the leading reason for physician visits. Although the prevalence of hypertension increases with age, the disease is not one that is found only in middle and older aged Americans. Nearly three million children aged 6 through 17 also suffer from high blood pressure. Black persons are at greater risk of hypertension than are white persons of the same age and sex.

Hypertension should also be viewed in terms of its relationship to other diseases. On the average, individuals with uncontrolled high blood pressure are three times as likely to develop coronary heart disease, six times as likely to develop congestive heart failure, and seven times as likely to suffer from a stroke as those who maintain controlled blood pressure.

In addition to elevated serum cholesterol and hypertension, obesity also appears to affect one's risk of cardiovascular disease. While agreement has not been reached as to whether obesity is an independent or a contributing factor, its impact cannot be doubted. The National Institutes of Health Consensus Development Conference Statement, "Health Implications of Obesity," found that the prevalence of elevated serum cholesterol levels in a young overweight age group was 2.1 times that of a non-overweight group. Likewise, USDA and HHS surveys have found that hypertension patients tend to be overweight, averaging approximately 130 percent of ideal weight.

The prevalence of obesity and its relationship to cardiovascular disease poses a major threat to the nation's health. Federal government survey data indicate that during the period 1976-1980, approximately 32 million Americans, 25-74 years of age, or 28 percent of the adult population, were overweight. Of equal if not greater concern is the incidence of obesity among our nation's youth. Data collected between 1963 and 1980 revealed that during this period obesity increased 54 percent in children age 6-11 and by 39 percent in children age 12-17. Superobesity increased in the 6-11 years old by 90 percent, and 64 percent in the 12-17 years old.

II. SCIENTIFIC RESEARCH LINKS DIET TO CARDIOVASCULAR DISEASE

A. Reductions in Dietary Fat and Cholesterol Linked to Reduced Risk of Cardiovascular Disease

A large body of scientific research has linked diets high in saturated fat and cholesterol to elevated serum cholesterol levels. Some have estimated that high levels of fatty acids and cholesterol in the American diet may, in fact, be responsible for serum cholesterol readings 40 to 50 milligram/deciliter above where they would be with an otherwise lower fat, low cholesterol diet.

That an elevated serum cholesterol level increases one's risk of cardiovascular disease is beyond question. According to the National Institutes of Health Consensus Development Conference Statement, "Lowering Blood Cholesterol to Prevent Heart Disease,":

> Elevated blood cholesterol level is a major cause of coronary artery disease. It has been established beyond a reasonable doubt that lowering definitely elevated blood cholesterol (specifically blood levels of low-density lipoprotein cholesterol) will reduce the risk of heart attacks due to coronary heart disease.

(Emphasis added.)

The NIH further found that among high risk patients treated with a combination of drug treatment and dietary modification, coronary heart disease rates were reduced by nearly 50 percent. The Conference concluded that among these patients for every 1 percent reduction in serum cholesterol levels, coronary heart disease rates were reduced by nearly 2 percent.

Furthermore, a large body of scientific literature further indicates that when individuals combine a reduction in consumption of dietary cholesterol with a reduction in consumption of saturated fat, even more substantial decreases in serum cholesterol levels may be expected.

B. Reduction of Sodium Intake Linked to Reduced Risk of Cardiovascular Disease

Cross cultural studies have shown a clear relationship between incidence of high blood pressure and the sodium content of the habitual diet. Overall, scientific research has supported the proposition that "low pressure" populations are "low salt" populations.

Although a direct linear relationship has not been established between sodium intake and blood pressure, frequently, blood pressure is significantly reduced among those with high blood pressure once sodium intake is reduced to less than 0.5 grams per day.

However, levels of reduction may differ among those who are mildly hypertensive and those who are severely hypertensive. Many persons with mild to moderate elevations in blood pressure may respond to moderate restrictions in sodium. In these cases, sodium restriction may lower blood pressure to a level equivalent to that which is normally achieved through drug therapy. While reductions in blood pressure levels may also be experienced by severe hypertensives treated with diet modification, medication may also be necessitated.

C. Obesity's Relationship to Cardiovascular Disease

Population studies have linked weight to risk of cardiovascular disease. It is not known whether the relationship is contributing or independent. It may well be that individuals who are obese may maintain certain life styles that

contribute to one's propensity to develop cardiovascular disease. However, some research supports the theory that weight is a "significant independent predictor" of cardiovascular disease.

Population studies have confirmed that the prevalence of hypertension is 2.9 times higher among the overweight than among the non-overweight. Other research has reported that among women younger than 70 who are more than 50 percent overweight, the incidence of stroke was four times that which was reported in the leanest group observed. Among men younger than 50, the risk of coronary artery disease was found to be twice as large among those considered overweight as compared to the leanest group.

Such data has led some to conclude that leanness and avoidance of weight gain before middle age are advisable goals in the prevention of cardiovascular disease for most American men and women.

III. DIET IN THE HEALTHY CHILD

The American Heart Association's dietary guidelines for healthy children over the age of two years recommend moderate changes while maintaining the tenets of nutritional adequacy. The focus is on substitution and modification rather than on elimination of certain foods. There are some childhood populations in the United States whose diet is not nutritionally sound. In such children, the first step must be to improve their overall nutrition.

A. Dietary Guidelines

1. Diet should be nutritionally adequate, consisting of a variety of foods.

2. Caloric intake should be based on growth rate, activity level and content of deposits of subcutaneous fat so as to maintain desirable body weight.

3. Total fat intake should be approximately 30 percent of calories, with 10 percent or less from saturated fat, about 10 percent from monounsaturated fat, and less than 10 percent from polyunsaturated fat. The emphasis should be on reduction of total fat and saturated fat rather than increasing polyunsaturated fat.

4. Daily cholesterol intake should be approximately 100 milligrams of cholesterol per 1,000 calories, not to exceed 300 milligrams. This allows for differences in caloric intake in various age groups.

5. Protein intake should be about 15 percent of calories, derived from varied sources.

6. Carbohydrate calories should be derived primarily from complex carbohydrate sources to provide necessary vitamins and minerals. Thus, the total percent of calories from carbohydrates would be about 55 percent.

7. Excessive salt intake may be associated with hypertension in susceptible persons. On the whole, the American diet contains excessive amounts of salt. Therefore, a limitation on most highly-salted processed foods and sodium-containing condiments and the elimination of added salt at the table is recommended.

B. Rationale for Dietary Guidelines

Atherosclerosis is a multifocal and multifactorial process which involves the gradual accumulation of cells, lipid, and proteinaceous material in the wall and on the lining of arteries, eventually narrowing the blood vessels, resulting in angina, myocardial infarction, stroke, peripheral vascular disease, or sudden death. Although configurations of atherosclerosis are usually present in adulthood, the apparent harbingers of the end-stage atherosclerotic lesions, fatty streaks, and fibrous plaques are found early in life.

Although more than one factor has been associated with increased risk for the development of coronary heart disease, an elevated plasma total cholesterol level is a major risk factor. Evidence supporting this association has been derived from many sources, including epidemiology, human pathology, and experimental pathology. Information on the importance of various risk factors has been obtained mainly from adults. However, in populations where the incidence of coronary heart disease is low, mean levels of plasma cholesterol in children are in the range of 100-150 milligrams/deciliter; on the other hand, where there is a high incidence of adult coronary heart disease, cholesterol levels in children are in the range of 150-200 milligrams/deciliter.

A more appropriate way to understand the relationship of diet and the plasma total cholesterol level is to study the effect of dietary change on plasma lipid levels. Numerous well-controlled studies demonstrate that plasma lipid levels can be changed in individuals by changing the amount of saturated and polyunsaturated fat and cholesterol in the diet, but the response in individuals is variable, demonstrating clearly that there are both external (often nutritional) and internal (inheritable) factors involved.

Epidemiologic surveys of precursors of risk factors for coronary heart disease in children have established that U.S. children have higher plasma lipid concentrations than do children of other populations in which adult atherosclerotic disease is less frequent. About 5 percent of 5-18 year old U.S. children have plasma cholesterol levels greater than 200-220 milligrams/deciliter. In this age group the level of high density lipoprotein (HDL) cholesterol may contribute significantly to the plasma total cholesterol concentration.

The levels of plasma lipids and lipoproteins in an individual are affected by a number of genetic and environmental factors, including individual variability in the regulation of the synthesis, metabolism, and catabolism of the plasma lipoproteins, which will modify the effect of dietary ingredients on plasma total cholesterol levels.

It has not been demonstrated directly by appropriately controlled studies whether dietary modification in children will alter the incidence of coronary heart disease in later life. It is unlikely that more conclusive evidence will be forthcoming in the near future. In adults, evidence supporting a reduced incidence of coronary heart disease in individuals with lower plasma cholesterol levels is strong.

A major associated benefit is the possibility that dietary habits learned in childhood will persist into adult life. The reduction of total dietary intake in the obese childhood population is an advantage. Finally, there is the possible benefit of a lower mean plasma cholesterol in the population.

The recommended diet is safe for all healthy children beyond infancy and can be expected to effect a modest reduction in plasma total cholesterol levels in most. The amount of reduction will vary between individuals, depending on the factors discussed previously.

Children with hyperlipidemias must be identified, because they may not respond adequately to the dietary recommendations, and they may require individual management. Many of these children come from families with hyperlipidemia or premature vascular disease. Plasma lipids and lipoproteins should be measured in all children from affected families.

Some children in the United States are nutritionally deprived. Recommendations to them about diet might, through good intentions, lead to a compounding of nutritional deficiencies.

IV. THE NATIONAL SCHOOL LUNCH PROGRAM

Recent media reports have suggested that the nutritional quality of many foods served through the national school lunch program is substandard, especially as regards fat, cholesterol, and sodium content. In a series entitled "Flunking Lunch", Lea Thompson of WRC-TV in Washington, D.C., reported that many foods served through the school lunch program are "extremely high in fat and sodium, and in a lot of cases, even higher in fat and sodium than fast foods."

As reported, Ms. Thompson and a team of investigative journalists obtained four to five favorite school lunch foods from five different counties and submitted the foods to an independent lab for nutritional analysis. Specifically, the lab was asked to determine the protein, carbohydrate, fat, sodium, and cholesterol content of submitted foods.

The lab reportedly revealed that foods sold to our nation's children through the school lunch program often have a higher fat and sodium content than fast food equivalents. For example, a slice of pizza served by a local fast food franchise was determined to contain 850 milligrams of sodium and two teaspoons of fat. A similar slice of pizza served by one school district was found to contain 1,220 milligrams of sodium and 6.5 teaspoons of fat.

Similar results were obtained in comparisons of other favored school lunch foods and fast food counterparts. According to the local reporter, a fast food franchise's serving of chicken nuggets contained 413 milligrams of sodium and 3.5 teaspoons of fat. A local school's serving of a similar product contained 586 milligrams of sodium and 6.4 teaspoons of fat. Likewise, whereas a fast food franchise's cheeseburger contained 743 milligrams of sodium, a similar product sold to students through the school lunch program contained 821 milligrams of sodium.

The American Heart Association is extremely concerned with the health and nutrition issues that this report raises. If foods served through the national school lunch program do indeed contain the high levels of fat and sodium that have been reported, then we are placing our nation's school-children at an increased risk of developing cardiovascular disease as they reach adulthood.

It should be noted that this threat is compounded by recently enacted legislation, which requires schools participating in the school lunch program to offer whole milk.

In its March 23, 1987 notice of final rule regarding the whole milk requirement of the national school lunch program, the Food and Nutrition Service of the U.S. Department of Agriculture requested comments on withdrawal of its current requirement that schools, participating in the school lunch program, offer an unflavored low-fat milk alternative. The American Heart Association believes it is essential that USDA retain its current requirement that schools offer a low-fat milk alternative.

Milk is a major constituent in the diets of the majority of children. Given the significant number of children with high serum cholesterol levels, and given the link between a high fat/high cholesterol diet and cardiovascular disease, the nutritional composition of low-fat milk alternatives, as compared to whole milk, justifies retention of the current USDA requirement. Furthermore, it is imperative that children with primary hyperlipidemia have easy access to skim milk in their schools.

One cup of whole milk (3.5 percent fat) contains 9 grams of fat, including 5 grams of saturated fat. Fat accounts for approximately 50 percent of the 160 calories contained within one cup of whole milk. In addition, one cup of whole milk contains 34 milligrams of cholesterol.

This must be compared to the nutritional composition of low-fat milk alternatives. One such alternative, 2 percent milk (nonfat milk solids added) contains nearly 5 grams of fat, including approximately 3 grams of saturated fat. Slightly more than one-third of the 125 calories found in a cup of 2 percent milk are attributable to fat.

One percent milk fairs even better. One cup of 1 percent milk contains less than 3 grams of fat, including less than 2 grams of saturated fat. Hence, slightly more than one-fifth of the 102 calories found in a cup of 1 percent milk are attributable to fat.

As is to be expected, skim milk is the most preferred alternative. One cup of skim milk provides only 0.4 grams of fat, including 0.3 grams of saturated fat. Whereas 50 percent of the calories found in a cup of whole milk are attributable to fat, approximately 4 percent of the calories found in a cup of skim milk are attributable to fat.

Similar differences are found in terms of cholesterol content. Whereas one cup of whole milk provides 34 milligrams of cholesterol, more than 10 percent of the recommended daily maximum, one cup of skim milk provides only 5 milligrams of cholesterol, or less than 2 percent of the adult daily recommended maximum.

It should be noted that low fat and skim milk products contain all of the nutrients found in whole milk; only the fat and cholesterol are reduced.

The American Heart Association believes that this nutritional evidence, when viewed in terms of the relationship between a diet high in fat and high in cholesterol and one's risk of developing cardiovascular disease, is sufficiently compelling as to warrant retention of the requirement that schools offer a low-fat milk alternative.

Concerns regarding administrative difficulties in serving more than one type of milk may be minimized by simple observation and careful planning at the local level. As long as alternatives are offered, it should not be too difficult for school service personnel to determine if the low-fat milk alternative is regularly sold out -- if so, obviously the school should increase its offering of this alternative. What is of greater importance is that those students, or teachers, who eat a meal in a school setting, have the option of purchasing products that will aid in efforts to reduce their risk of cardiovascular disease.

If the administrative burden is, in fact, substantial, then the American Heart Association has urged the Food and Nutrition Service to petition Congress calling for enactment of legislation that would require schools to offer only low or no fat milk products and not a whole milk alternative.

V. CONCLUSION

Cardiovascular disease is this nation's number one killer. Millions of Americans, including our nation's youth, are placed at an increased risk of developing cardiovascular disease due to the consumption of diets that are high in fat, cholesterol, and sodium. The American Heart Association believes that it may be possible to reduce the incidence of the complications of atherosclerosis in adults through the institution of preventive measures in childhood. The use of a prudent diet, reduced in fat content, in healthy children is a safe and most likely effective way to achieve an important element of these preventive measures. As previously indicated, such action is essential for children with primary hyperlipidemia.

In order to aid and encourage our nation's school-children to develop heart healthy eating habits, low-fat/low-cholesterol/low-sodium products must be made available. At the very minimum, students should be free to choose between whole milk, one cup of which acquires approximately 50 percent of its calories from fat, and a low-fat or skim milk alternative, one cup of which may acquire as little as 4 percent of its calories from fat.

For these reasons, the American Heart Association has urged the U.S. Department of Agriculture Food and Nutrition Service to retain its current requirement that schools participating in the school lunch program offer a low-fat alternative to whole milk. We further urge the Senate Agriculture Subcommittee on Nutrition to investigate the fat, cholesterol, and sodium content of foods served through the school lunch program. In so doing, the Subcommittee may help ensure that our nation's school-children live longer and healthier lives.

Respectfully submitted,

Scott D. Ballin
Vice President and
Legislative Counsel

Diet in the Healthy Child

American Heart Association

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Introduction

Traditionally, physicians who care for children have practiced preventive medicine. It is natural that they should turn their attention to the past 20 years of accumulated knowledge about the pathogenesis of atherosclerosis. There is general agreement that atherosclerosis may begin in youth and undergo progression through young adulthood, even though clinical manifestations usually do not appear until middle age or later.[1,2,3]

More attention is now being focused on identifying risk factors for coronary heart disease (CHD) in children so that preventive measures can be introduced at a stage when they are most likely to influence the underlying etiologic pathologic process. These measures may also influence habits that will extend into adulthood and reduce the risks of developing atherosclerosis as an adult. The primary risk factors for CHD are smoking, hypertension, and elevated plasma cholesterol. The purpose of this statement is to recommend prudent modification of diet in healthy children and adolescents as a means of influencing plasma cholesterol levels and to discuss the rationale for this approach in this population.

Dietary Recommendations

These dietary guidelines for healthy children over the age of two years recommend moderate changes while maintaining the tenets of nutritional adequacy. The focus is on substitution and modification rather than on elimination of certain foods. There are some childhood populations in the United States whose diet is not nutritionally sound. In such children, the first step must be to improve their overall nutrition.

The dietary recommendations are:

1. Diet should be nutritionally adequate, consisting of a variety of foods.
2. Caloric intake should be based on growth rate, activity level and content of deposits of subcutaneous fat so as to maintain desirable body weight.
3. Total fat intake should be approximately 30% of calories, with 10% or less from saturated fat, about 10% from monounsaturated fat, and less than 10% from polyunsaturated fat. The emphasis should be on reduction of total fat and saturated fat rather than increasing polyunsaturated fat.
4. Daily cholesterol intake should be approximately 100 mgs. cholesterol per 1,000 calories, not to exceed 300 mgs. This allows for differences in caloric intake in various age groups.
5. Protein intake should be about 15% of calories, derived from varied sources.
6. Carbohydrate calories should be derived primarily from complex carbohydrate sources to provide necessary vitamins and minerals. Thus, the total percent of calories from carbohydrates would be about 55%.
7. Excessive salt intake may be associated with hypertension in susceptible persons. On the whole, the American diet contains excessive amounts of salt. Therefore, a limitation on most highly-salted processed foods and sodium-containing condiments and the elimination of added salt at the table is recommended.

Rationale

Origins of atherosclerosis in childhood. Atherosclerosis is a multifocal, multifactorial process which involves the gradual accumulation of cells, lipid, and proteinaceous material in the wall and on the lining of arteries, eventually narrowing the blood vessels, resulting in angina, myocardial infarction, stroke, peripheral vascular disease, or sudden death. Although configurations of atherosclerosis usually present in adulthood, the apparent harbingers of the end-stage atherosclerotic lesions, fatty streaks, and fibrous plaques are found early in life.[1-3,4,6] Further, more advanced atherosclerosis may be present in young adults (e.g., young soldiers who died of battle trauma in World War II and the Korean and Vietnam conflicts[4-7] exhibited severe coronary artery disease).

Plasma total cholesterol level and coronary heart disease (CHD): Although more than one factor has been associated with increased risk for the development of CHD,[4,9-10] an elevated plasma total cholesterol level is a major risk factor. Evidence supporting this association has been derived from many sources, including epidemiology,[5,11,12] human pathology,[13,14] and experimental pathology.[15,16] Information on the importance of various risk factors has been obtained mainly from adults. However, in populations where the incidence of adult CHD is low, mean levels of plasma cholesterol in children are in the range of 100-150 mg/dl; on the other hand, where there is a high incidence of adult CHD, cholesterol levels in children are in the range of 150-200 mg/dl[17-19]

Plasma cholesterol levels and dietary ingredients: Adult populations consuming diets low in cholesterol and saturated fat have lower plasma cholesterol levels and lower incidence of atherosclerotic complications.[8,11,20-22] However, analytic studies of adults and children show conflicting results and have not been able to show a correlation between dietary ingredients and plasma cholesterol levels.[10,23-28] These incongruent results may be explained partially by the large dietary differences between populations, as compared to the small dietary differences within populations. In addition, responses to dietary ingredients are individually determined by familial (genetic and environmental) factors. These responses strongly influence correlations of plasma lipids with diet intrapopulation studies.

Response of plasma lipids to a reduction of dietary cholesterol and saturated fat. A more appropriate way to understand the relationship of diet and the plasma total cholesterol level is to study the effect of dietary change on plasma lipid levels. Numerous well-controlled studies demonstrate that plasma lipid levels can be changed in individuals by changing the amount of saturated

Table 1
Plasma Lipid Concentrations in the First Two Decades of Life*

		Cholesterol (mg/100ml)			Triglycerides (mg/100 ml)		
Age (years)	No.	5th	Mean	95th	5th	Mean	95th
0-4							
Males	238	114	155	203	29	56	99
Females	186	112	156	200	34	64	112
5-9							
Males	1253	121	160	203	30	56	101
Females	1118	126	164	205	32	60	105
10-14							
Males	2278	119	158	202	32	66	125
Females	2087	124	160	201	37	75	131
15-19							
Males	1980	113	150	197	37	78	148
Females	2079	120	158	203	39	75	132

*Data are from the Lipid Research Clinic Data Book (1980).[40] Lipids were determined on plasma from 11,219 fasting, white subjects (5749 males; 5470 females) who were studied in seven North American Lipid Research Clinics using common protocols and laboratory methodology. Cholesterol data are taken from pages 28 and 29; triglycerides data are taken from pages 39 and 40.

and polyunsaturated fat and cholesterol in the diet,[29-32] but the response in individuals is variable, demonstrating clearly that there are both external (often nutritional) and internal (inheritable) factors involved.[33-34]

Plasma cholesterol and lipoproteins. Recent knowledge about lipid metabolism and lipid transport has increased our understanding of how plasma lipid and lipoprotein levels relate to atherosclerosis. Cholesterol is transported in combination with specific aggregates of lipids and proteins called lipoproteins. Normally, most of the plasma cholesterol is carried in low density (beta) lipoproteins (LDL). A small fraction is present in the triglyceride-rich (lipoproteins), very low density (prebeta) lipoproteins (VLDL). The remaining cholesterol is transported in high density (alpha) lipoproteins (HDL). Recent studies suggest that individuals whose HDL cholesterol concentrations are high are less likely to have CHD, conversely, low levels of HDL are associated with an increased risk for CHD that is independent of LDL cholesterol levels. The significance of the association between triglyceride levels and CHD has not as yet been clearly determined.[35-36] Whether an elevated level of plasma triglyceride is a risk factor for CHD, independent of LDL and HDL cholesterol levels, is unknown.[35-37]

Lipid and lipoprotein cholesterol levels in children

Epidemiologic surveys of precursors of risk factors for CHD in children have established that U.S. children have higher plasma lipid concentrations than do children of other populations in which adult atherosclerotic disease is less frequent. About 5% of 5-18 year old U.S. children have plasma cholesterol levels greater than 200-220 mgs/dl (Table 1). In this age group the level of HDL cholesterol may contribute significantly to the plasma total cholesterol concentration (Table 2).

Multiple influence on plasma lipid and lipoprotein cholesterol levels. The levels of plasma lipids and lipoproteins in an individual are affected by a number of genetic and environmental factors, including individual variability in the regulation of the synthesis, metabolism, and catabolism of the plasma lipoproteins, which will modify the effect of dietary ingredients on plasma total cholesterol levels.

Other theoretical and practical considerations. It has not been demonstrated directly by appropriately controlled studies whether dietary modification in children will alter the incidence of CHD in later life. It is unlikely that more conclusive evidence will be forthcoming in the near future. In

Table 2
Normal Plasma Lipoprotein Concentrations in the First Two Decades of Life*

	HDL Cholesterol (mg/100ml)				LDL Cholesterol (mg/100 ml)				VLDL Cholesterol (mg/100ml)			
Age (years)	No.	5th	Mean	95th	No.	5th	Mean	95th	No.	5th	Mean	95th
5-9												
Males	142	38	56	74	131	63	93	129	130	0	8	18
Females	124	36	53	73	114	68	100	140	110	1	10	24
10-14												
Males	296	37	55	74	284	64	97	132	286	1	10	22
Females	247	37	52	70	244	68	97	136	244	2	11	23
15-19												
Males	299	30	46	63	298	62	94	130	296	2	13	26
Females	295	35	52	74	294	59	96	137	293	2	12	24

*Data are from the Lipid Research Clinic Data Book (1980).[10] Lipoproteins were determined on plasma from 1415 fasting white subjects (743 males, 672 females) who were studied in seven North American Lipid Research Clinics, using common protocols and laboratory methodology. Data for VLDL cholesterol are taken from pages 64 and 65, LDL cholesterol data from pages 70 and 71, HDL cholesterol from pages 76 and 77.

adults, evidence supporting a reduced incidence of CHD in individuals with lower plasma cholesterol levels is strong.[38,39]

A major associated benefit is the possibility that dietary habits learned in childhood will persist into adult life. The reduction of total dietary intake in the obese childhood population is an advantage. Finally, there is the possible benefit of a lower mean plasma cholesterol level in the population.

The recommended diet is safe for all healthy children beyond infancy and can be expected to effect a modest reduction in plasma total cholesterol levels in most. The amount of reduction will vary between individuals, depending on the factors discussed previously.

Children with primary hyperlipidemias must be identified, because they may not respond adequately to the above recommendations and they may require individual management. Many of these children come from families with hyperlipidemia or premature vascular disease. Plasma lipids and lipoproteins should be measured[41] in all children from affected families.

Some children in the United States are nutritionally deprived. Recommendations to them about diet might, through good intentions, lead to a compounding of nutritional deficiencies.

Summary

Atherosclerosis is a major cause of disease and death in the United States. Physicians who care for the young have a unique and important role to play in reducing the incidence of the complications of atherosclerosis in adults through the institution of preventive measures in childhood. The use of a prudent diet, reduced in fat content, in healthy children is a safe and most likely effective way to achieve an important element of these preventive measures.

References

1. Holman RL, McGill HC Jr, Strong JP, et al: The natural history of atherosclerosis: the early aortic lesions as seen in New Orleans in the middle of the 20th century. *Am J Pathol* 1958; 34: 209-235.
2. Strong JP, McGill HC Jr: The natural history of coronary atherosclerosis. *Am J Pathol* 1962, 40: 37-49.
3. Strong JP, McGill HC Jr: The pediatric aspects of atherosclerosis. *J Atheroscler Res* 1969; 9:251-265.
4. Inter-Society Commission of Heart Disease Resources, Atherosclerosis Study Group and Epidemiology Study Group: Primary prevention of the atherosclerotic diseases, in Wright IS, Frederickson DT (eds): *Cardiovascular Diseases: Guidelines for Prevention and Care*. U.S. Government Printing Office, 1974, p 15.
5. Strong, JP, Eggen DA, Oalmann MC. In Wissler RW, Greer JC (eds): *The Pathogenesis of Atherosclerosis*. Baltimore, MD, Williams J. Wilkins, 1972, p 20.
6. Stamler J: Population studies, in Levy RI, Rifkind BM, et al (eds): *Nutrition, Lipids, and Coronary Heart Disease: A Global View*. New York: Raven Press, 1979, p 25.
7. Enos WF, Beyer JC, Holmes R: Pathogenesis of coronary disease in American soldiers killed in Korea. *JAMA* 1955; 158: 912-914.
8. Steinberg D: Chemotherapeutic approaches to the problem of hyperlipidemia. *Advance Pharmacol* 1962; 1: 59.
9. McGee D, Gordon T: The Framingham Study — an epidemiological investigation of cardiovascular disease, Sect. 31: The results of the Framingham study applied to four other U.S. based epidemiologic studies of cardiovascular disease. DHEW Pub. No. (NIH) 76-1083, 1976.
10. Pooling Project Research Group: Relationship of blood pressure, serum cholesterol, smoking habit, relative weight and ECG abnormalities to incidence of major coronary events: Final report of the pooling project. *J Chron Dis* 1978; 31: 201-306.
11. Keys A, Aravanis C, Blackburn HW, et al: Epidemiological studies related to coronary heart disease: characteristics of men aged 40-59 in seven counties. *Acta Med Scand* 1966; 460 (suppl): 1+.
12. Kato H, Tillotson J, Nichaman MZ, et al: Epidemiologic studies of coronary heart disease and stroke in Japanese men living in Japan, Hawaii and California. *Am J. Epidemiol* 1973; 97: 372-85
13. Duff GL, McMillan GC: Pathology of atherosclerosis. *Am J Med* 1951; 11: 92-108.
14. Berenson GS, Srinivasan SR, Radhakrishnamurthy B, et al: Mucopolysaccharide — lipoprotein complexes in atherosclerotic aorta. *Adv Exp Med Biol*1974; 43: 141-59
15. Taylor CB, Cox GE, Manalo-Estrella P, et al: Atherosclerosis in rhesus monkeys. II. Arterial lesions associated with hypercholesteremia induced by dietary fat and cholesterol. *Arch Path* 1962; 74: 16-34.
16. Wissler RW, Vesseinovitch D. In Hauss WH, Wissler RW, Lehmann R (eds): *International Symposium. State of Prevention and Therapy in Human Arteriosclerosis and in Animal Models*. Germany, Westdeutscher-Verlag Opladen, 1977, pp 13-29.

17. Blackburn H, Berenson GS, Chirstakis G, et al: Conference on the health effects of blood lipids: Optimal distributions for populations. Workshop Report: Epidemiological Section. *Prev Med* 1979; 8: 612-78.
18. Connor WE, Cerqueira MT, Connor RW, et al: The plasma lipids, lipoproteins, and diet of the Tarahumara Indians of Mexico. *Am J Clin Nutr* 1978; 31: 1131-42.
19. Golubjatnikov R, Paskey T, Inhorn SL: Serum Cholesterol levels of Mexican and Wisconsin school children. *Am J Epidemiol* 1972; 96: 36-39.
20. Keys A, Taylor HL, Blackburn H, et al: Coronary heart disease among Minnesota business and professional men followed 15 years. *Circulation* 1963; 28: 381-95.
21. Phillips RL, Lemon FR, Beeson WL, et al: Coronary heart disease mortality among Seventh-Day Adventists with differing dietary habits: a preliminary report. *Am J Clin Nutr* 1978; 31 (10 suppl): S191-S198.
22. Kagar A, Harris B, Winkelstein W, et al: Epidemiologic studies of coronary heart diseases and stroke in Japanese men living in Japan, Hawaii, and California: Demographic, physical, dietary and biochemical characteristics. *J Chron Dis* 1974; 27: 345-364.
23. Enig MG, Munn RJ, Keeney M: Dietary fat and cancer trends — a critique. *Fed Proc* 1978; 37: 2215-20.
24. Mendoza S, Contreras G, Ineichen E, et al: Lipids and lipoproteins in Venezuelan and American school children: Within and cross-cultural comparisons. *Pediatr Res* 1980; 14: 272-7.
25. Frank GC, Berenson GS, Webber LS: Dietary studies and the relationship of diet to cardiovascular risk factor variables in 10-year old children. The Bogalusa Heart Study. *Am J Clin Nutr* 1978; 31: 328-40.
26. Morrison JA, Larsen R, Glatfelter L, et al: Interrelationships between nutrient intake and plasma lipids and lipoproteins in school children aged 6 to 19: The Princeton School District Study. *Pediatrics* 1980; 65: 727-34.
27. Weidman WH, Elveback LR, Nelson RA, et al: Nutrient intake and serum cholesterol level in normal children 6 to 16 years of age. *Pediatrics* 1978; 61: 354-9.
28. Shekelle RB, Shryock AM, Paul O, et al: Diet, serum cholesterol, and death from coronary heart disease. The Western Electric Study. *N Engl J Med* 1981; 304: 65-70.
29. Kornitzer M, DeBacker G, Dramaix M, et al: The Belgian heart disease prevention project. Modification of the coronary risk profile in an industrial population. *Circulation* 1980; 61: 18-25.
30. Leren P: The effect of plasma cholesterol lowering diet in male survivors of myocardial infarction: A controlled clinical trial. *Acta Med Scand* 1966; 466 (suppl): 1-92.
31. Dayton S, Pearce ML, Hashimoto S, et al: A controlled clinical trial of a diet in unsaturated fat in preventing complications of atherosclerosis. *Circulation* 1969; 40 (suppl No 11): 1-63.
32. Miettinen M, Turpeinen O, Karvonen MJ, et al: Effect of cholesterol-lowering diet on mortality from coronary heart disease and other causes: A twelve-year clinical trial in men and women. *Lancet* 1972; 2: 835-8.
33. Tsang RC, Fallat RW, Gleuck CJ: Cholesterol at birth and age 1: Comparison of normal and hypercholesterolemic neonates. *Pediatrics* 1974; 53: 458-70.
34. Hodges RE, Salel AF, Dunkley WL, et al: Plasma lipid changes in young adult couples consuming polyunsaturated meats and dairy products. *Am J Clin Nutr* 1975; 28: 1126-40.
35. Carlson LA, Bottiger LE: Ischemic heart disease in relation to fasting values of plasma triglycerides and cholesterol. Stockholm prospective study. *Lancet* 1972; 1: 865-8.
36. Hulley SB, Rosenman RH, Bawol RD, et al: Epidemiology as a guide to clinical decision: The association between triglyceride and coronary heart disease. *N Engl J Med* 1980; 302: 1383-9.
37. Rhoads CG, Gulbrandsen GL, Kagan A: Serum lipoproteins and coronary heart disease in a population study of Hawaii Japanese men. *N Engl J Med* 1976; 294: 293-8.
38. Kannel WB, Gordon T (eds): The Framingham Study: An epidemiological investigation of cardiovascular disease. Washington, DC, Government Printing Office, Sec. 23, 1968; Sect 24-25, 1970.
39. Nichols AB, Ravenscroft C, Lamphiear DE, et al: Daily nutritional intake and serum lipid levels. The Tecumseh Study. *Am J Clin Nutr* 1976; 29: 1384-92.
40. *The Lipid Research Clinics: Population Studies Data Book*. Vol I, The prevalence study. US Dept of Health and Human Services publication No (NIH) 80-1527, 1980, pp 28-29, 39-40, 64-65, 70-71, 76-77.
41. Kwiterovich PO, Salz KM: Pediatric aspects of the diet-heart hypothesis, in *Infant and Child Feeding*. New York, Academic Press, Inc, 1981, pp 301-304, 307.

Prepared by an ad hoc joint committee of the Nutrition Committee and the Cardiovascular Disease in the Young Council of the American Heart Association (1983) William Weidman, M.D., Chairman; Peter Kwiterovich Jr., M.D.; Mary Jane Jesse, M.D.; and Elizabeth Nugent, M.D.

For use by health care professionals.

Diagnosis and Treatment of Primary Hyperlipidemia in Childhood

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A Joint Statement for Physicians by the Committee on Atherosclerosis and Hypertension in Childhood of the Council on Cardiovascular Disease in the Young and the Nutrition Committee, American Heart Association

American Heart Association

Position Statement

Diagnosis and Treatment of Primary Hyperlipidemia in Childhood

A Joint Statement for Physicians by the Committee on Atherosclerosis and Hypertension in Childhood of the Council on Cardiovascular Disease in the Young and the Nutrition Committee, American Heart Association*

In adults, atherosclerosis and coronary artery disease are strongly associated with increased plasma total cholesterol levels. The relationship has been demonstrated in both interpopulation and intrapopulation studies. Children in countries with a high incidence of coronary artery disease have higher total cholesterol levels than do children from countries with a low incidence.[1-3] About 5% of 5- to 18-year-old American children have total plasma cholesterol levels exceeding 200 mg/dl,[4-6] and epidemiologists in the United States have set a goal of achieving in children an average total plasma cholesterol level of 150 mg/dl.[7] Toward this goal, the American Heart Association recommends that all American children gradually decrease their intake of cholesterol and saturated fat.[8] Additionally, there are children with lipoprotein abnormalities who are at even greater risk.

The levels of plasma lipids and lipoproteins in an individual are affected by a number of genetic factors including individual variability in the regulation of the synthesis, metabolism, and catabolism of plasma lipoproteins.[9,10] These factors can modify the effect of dietary ingredients on plasma total cholesterol levels so that the response to dietary restriction of cholesterol and saturated fat in an individual child is greater or lesser, depending on genetic determinants.

Plasma lipid and lipoprotein abnormalities and their consequences cluster in families.[11-20] Thus, more children from families with a higher incidence of premature vascular disease will have lipoprotein abnormalities than are present in the general population.

This statement provides a theoretical and practical approach to the identification and management of disorders of plasma lipid and lipoprotein metabolism in the pediatric age group.

Plasma Lipid and Lipoprotein Metabolism

Cholesterol and triglycerides are the primary lipids in plasma. Cholesterol is essential in cellular metabolism, and triglycerides are an important energy source. Both are transported in the blood as components of lipoproteins. Four classes of lipoproteins have been isolated by ultracentrifugation:

1. *Chylomicrons* transport dietary fat (as triglycerides) and a small amount of cholesterol from the intestine to the plasma. The triglycerides are removed by lipoprotein lipase and stored in fat cells as fatty acids. A remnant remains which, unless removed by the liver, is thought by some investigators to have an atherogenic capability similar to low-density lipoproteins.
2. *Very low density lipoproteins* (VLDL) are secreted by the liver and are the second major transport for triglycerides; they also carry a small amount of cholesterol. Lipoprotein lipase removes triglycerides from VLDL with the end product converted, in the liver, to low-density lipoprotein.
3. *Low-density lipoproteins* (LDL) are the end product of VLDL metabolism, and some LDL is secreted directly into the plasma. LDL is the major carrier of cholesterol and is closely linked to atherogenesis. The amount of LDL taken up by the cells is controlled by LDL "receptors" located on the cell membrane. Deficiency of these receptors results in elevated levels of plasma low-density lipoprotein cholesterol.
4. *High-density lipoproteins* (HDL) are the second major carrier of cholesterol and are thought to be responsible for the transport of cholesterol to the liver for secretion in the bile. High levels of HDL are thought to be protective against atherosclerosis.

Apoproteins are the protein portion of the lipoproteins. They play an important role in the metabolism of cholesterol and triglycerides. Abnormalities in one or more apoproteins result in abnormal lipoproteins and may in the future be an important

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TABLE 1. *Normal Plasma Lipid and Lipoprotein Concentrations at Birth*

Lipid	Concentration (mg/dl)
Cholesterol	
Total	74 (11)
HDL	37 (8)
LDL	31 (6)
VLDL	6 (4)
Triglycerides	
Total	37 (15)

Data are the mean (one standard deviation) from 36 normal, full-term newborns. The 95th percentiles (mg/dl) for total cholesterol, LDL cholesterol, and total triglycerides are 92, 41, and 67, respectively.

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factor in the definition of children at risk of developing atherosclerosis.[21,22]

Abnormalities in lipoprotein metabolism result in accumulation of one or more lipoproteins in the blood with increases in cholesterol, triglycerides, or both.

The plasma lipid and lipoprotein levels are the result of the above complex metabolic processes, undoubtedly under the control of a number of genetic and environmental (e.g., dietary) influences. As a result, the concentrations of plasma cholesterol, triglycerides, and lipoproteins in a population of children are distributed over a wide range of values.[23–25]

Plasma Lipid and Lipoprotein Levels in Infancy and Early Childhood. Human plasma cholesterol levels are lowest at birth (Table 1). Approximately one-half of the plasma cholesterol in the umbilical cord blood is carried in HDL, with most of the remaining cholesterol transported in LDL. VLDL levels at birth are very low. Triglyceride concentrations are very sensitive to prenatal and perinatal events, and, consequently, triglyceride levels in cord blood are not very reliable for diagnostic purposes. The total plasma and LDL cholesterol levels increase rapidly in the first weeks of life, and LDL quickly becomes the major carrier of human plasma cholesterol. The kind and source of milk in the infant's diet can markedly influence cholesterol level. Cholesterol levels increase more slowly after the age of 1 month through the next 11 months of life. In contrast, triglyceride levels are higher in the first 6 months of life compared with the second half of the first year.

TABLE 2. *Normal Plasma Lipid Concentrations in the First Two Decades of Life (mg/dl)*

		Cholesterol			Triglycerides		
Age (yr)	No.	5th	Mean	95th	5th	Mean	95th
0–4							
Males	238	114	155	203	29	56	99
Females	186	112	156	200	34	64	112
5–9							
Males	1253	121	160	203	30	56	101
Females	1118	126	164	205	32	60	105
10–14							
Males	2278	119	158	202	32	66	125
Females	2087	124	160	201	37	75	131
15–19							
Males	1980	113	150	197	37	78	148
Females	2079	120	158	203	39	75	132

Lipids were determined on plasma from 11,219 fasting, white subjects (5,749 males; 5,470 females) who were studied in seven North American Lipid Research Clinics using common protocols and laboratory methodology.

Adapted from *The Lipid Research Clinics Data Book* (1979).[4]

Normal Plasma Lipid and Lipoprotein Levels in Childhood and Adolescence. The usual plasma lipid and lipoprotein concentrations in the first two decades of life are summarized in Tables 2 and 3.[4] Several crossovers begin in the first half of the second decade. Males develop significantly lower HDL cholesterol levels but higher VLDL cholesterol and triglyceride concentrations than females. By the early twenties, the LDL cholesterol levels are higher in males. Males in early adult life therefore have lipid and lipoprotein

TABLE 3. *Normal Plasma Lipoprotein Concentrations in the First Two Decades of Life (mg/dl)*

	HDL Cholesterol				LDL Cholesterol				VLDL Cholesterol			
Age (yr)	No.	5th	Mean	95th	No.	5th	Mean	95th	No.	5th	Mean	95th
5–9												
Males	145	38	56	75	132	63	93	129	132	0	8	18
Females	127	36	53	73	114	68	100	140	113	1	10	24
10–14												
Males	298	37	55	74	288	64	97	133	288	1	10	22
Females	248	37	52	70	245	68	97	136	245	2	11	23
15–19												
Males	300	30	46	63	298	62	94	130	297	2	13	26
Females	297	35	52	74	295	59	96	137	295	2	12	24

Lipoproteins were determined on plasma from 1,415 fasting, white subjects (743 males, 672 females) who were studied in seven North American Lipid Research Clinics, using common protocols and laboratory methodology.

Adapted from *The Lipid Research Clinics Data Book* (1979).[4]

levels associated with greater risk for coronary artery disease than females; specifically, males have higher mean total plasma, LDL, and VLDL cholesterol and triglyceride levels but lower HDL cholesterol concentrations than females.

Abnormal Plasma Lipid and Lipoprotein Levels in Infancy, Childhood, and Adolescence. A given level of plasma lipid or lipoprotein is not diagnostic of a disorder of lipid or lipoprotein metabolism. Clinicians and other medical scientists have historically chosen cut points at the ends of the distribution curves as working definitions of hyper- (or hypo-) lipoproteinemia. The age- and sex-adjusted 5th and 95th percentile values have been used to define arbitrarily at least a degree of abnormality.[26]

Hyperlipidemia and Hyperlipoproteinemia

Classification. One definition of hypercholesterolemia in the first two decades of life is a level of total cholesterol or LDL cholesterol at or above the 95th percentile. The definition for hypertriglyceridemia is a level above the 95th percentile. These are working definitions of hyperlipidemia; levels of plasma lipids in childhood that are associated with the best general health and the least risk of developing coronary artery disease subsequently as adults have not been determined. Plasma lipoproteins have also been used as the basis of classification of hyperlipidemia. Patients with hyperlipidemia have been categorized in five major groups according to plasma lipoprotein patterns. Summarized in Table 4, the disorders are arranged numerically according to the Fredrickson classification scheme.[27] The types define the lipoprotein abnormality, whether the cause is genetic, environmental, or from disease. In childhood, hypercholesterolemia is usually a manifestation of increased levels of LDL cholesterol. However, about 15 to 25% of children with plasma cholesterol levels of 200 to 240 mg/dl will have concentrations of LDL cholesterol below the 95th percentile with above average to high HDL cholesterol levels (Table 3).[28] It is therefore important to determine HDL cholesterol levels in children with hypercholesterolemia to distinguish those with Type II hyperlipoproteinemia and those with normal LDL levels. Treatment is currently recommended only for those with elevated LDL cholesterol levels. In the majority of children, hypertiglyceridemia is a manifestation of increased VLDL levels (Type IV hyperlipoproteinemia); cholesterol levels are usually normal.

TABLE 4. *Classification of Hyperlipidemia*

Fredrickson type	Lipid elevation	Lipoprotein elevation	Prevalence in childhood
I	Triglyceride	Chylomicrons	Rare
IIa	Cholesterol	Low-density lipoprotein	Common
IIb	Cholesterol	Low-density lipoprotein	Uncommon
	Triglyceride	Very low density lipoprotein	
III	Cholesterol Triglyceride	Beta very low density lipoprotein (cholesterol-rich VLDL remnant)	Very rare
IV	Triglyceride	Very low density lipoprotein	Uncommon
V	Triglyceride Cholesterol	Very low density lipoprotein	Very rare
		Chylomicrons	

Lipids and Lipoproteins as Diagnostic Tools. Lipoproteins can be measured by either electrophoresis or ultracentrifugation. Electrophoresis is not useful as a diagnostic tool since it is only semiquantitative; however, complete quantitation of lipoproteins by ultracentrifugation is not usually accessible and is quite expensive.

These guidelines stress the importance of detection and treatment of children with inherited disorders of lipid and lipoprotein metabolism. It is recommended that, as a minimum, all children have total cholesterol, total triglyceride, and HDL cholesterol levels measured after an overnight fast if there is a family history of premature vascular disease (males under 50 years and females under 60 years of age), hyperlipidemia, sudden death, or xanthomas in a parent or grandparent. LDL cholesterol can be estimated using the formula developed by the Lipid Research Clinics: LDL cholesterol = total cholesterol − (triglycerides/5 + HDL cholesterol). As long as the triglyceride level is not above 400 mg/dl, this indirect measurement is very reliable. In addition, plasma lipids should be measured if an infant has unexplained postprandial irritability or a child has recurrent, unexplained abdominal pain or is above the ideal weight for height.

There is a difference of opinion as to when and how often blood specimens should be obtained from children in a family with a history of hyperlipidemia or premature vascular disease; however, most investigators believe the blood lipids should be measured at or near 2 years of age. If the results from the first test are normal, the lipids should be remeasured every 2 to 3 years. In families where the diagnosis of familial hypercholesterolemia is already established, the identification of an affected infant can be made from umbilical cord blood lipid measurement.

Routine screening of plasma lipids in all children is not recommended at the present time. The use of total cholesterol alone may not identify some children with elevated low-density lipoprotein cholesterol, and some individuals believe that screening of the entire population should be delayed until a more definitive, less expensive test is developed. However, should a physician decide to screen all his patients, a single cholesterol determination at the age of 2 years and a cholesterol and triglyceride determination after the age of 10 years probably represents a reasonably efficient screening approach (Table 5).

Upon determining hyperlipidemia in a given child, the first consideration is whether the hyperlipidemia or hyperlipoproteinemia is primary or secondary to one of a variety of metabolic diseases. The secondary causes of hyperlipoproteinemia in children and young adults are listed in Table 6. The most common secondary

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TABLE 5. *Plasma Lipid Measurement*

	Group	Age (yr)	Test	Result (percentile)	Action
A.	All	2	Total cholesterol	<95	Repeat at 10–15 yr
				≥95	Proceed as in "C"
		10–15	Total cholesterol	<95	Repeat as adult
				≥95	Proceed as in "C"
			Total triglyceride	<95	Repeat as adult
				≥95	Repeat in 2 weeks
B.	Obese	15–18	Total cholesterol	<95	Repeat yearly
				≥95	Repeat in 2 weeks; repeat after attainment of ideal weight
			Total triglyceride	<95	Repeat yearly
				≥95	Repeat in 2 weeks; repeat after attainment of ideal weight
C.	High risk*	2	Total cholesterol Total triglyceride HDL cholesterol	LDL cholesterol **<95 LDL cholesterol ≥95	Repeat yearly Repeat in 2 weeks
	Postprandial irritability	<10	Total triglyceride	≥95	Repeat in 1 day
D.	Recurrent unexplained abdominal pain	<10	Chylomicrons	Presence after fasting	Repeat in 1 day

*High risk: Family history of hyperlipidemia, premature vascular disease, sudden death, or xanthoma.
**LDLC = Total cholesterol − (triglyceride/5 + HDL cholesterol).

causes in the first year of life are glycogen storage disease and congenital biliary atresia. Hypothyroidism, diabetes mellitus, and the nephrotic syndrome are the most prevalent of the metabolic causes later in childhood. Exogenous factors probably are the most prevalent primary causes of elevated lipid and lipoprotein levels in the first two decades of life. These include dietary practices, use of oral contraceptives, alcohol ingestion, and administration of steroids for conditions such as collagen vascular disease, rheumatic fever, asthma, and renal transplant. The possibility that hypertriglyceridemia is secondary to the nonfasting state, particularly in infants and very young children, must always be considered. When secondary causes are ruled out, the diagnosis of a primary hyperlipidemia can be made.

Hypercholesterolemia (Type IIa)

Primary

Three genetic forms of primary hypercholesterolemia have been described: polygenic hypercholesterolemia, monogenic hypercholesterolemia, and combined hyperlipidemia.

Polygenic Hypercholesterolemia. The increase in total cholesterol or low-density lipoprotein cholesterol in most children is due to various dietary, polygenic, metabolic, and unrecognized factors. A monogenic mode of inheritance cannot be demonstrated.

Monogenic (Familial) Hypercholesterolemia. In addition to the measurement of total cholesterol and low-density lipoprotein, other clinical or family data are necessary to confirm the diagnosis of monogenic hypercholesterolemia in an infant or child. Monogenic hypercholesteolemia is transmitted as a Mendelian dominant trait with complete expression of high LDL levels at birth. It is the most commonly recognized form of familial hyperlipidemia in childhood. Estimates of the prevalence of heterozygous familial hypercholesterolemia range from 1 in 200 to 1 in 500; the prevalence of the homozygous form is 1 in 1 million. Family studies with confirmation of increased LDL levels are necessary to substantiate the diagnosis of monogenic hypercholesterolemia. The heterozygous familial hypercholesterolemic child is clinically asymptomatic in the first decade. The average cholesterol level is between 250 and 500 mg/dl; 10 to 15% of heterozygotes develop tendon xanthomas during the second decade, most commonly in the Achilles and extensor tendons of the hands; planar xanthomas may also occur. Rarely, a young adult with heterozygous monogenic hypercholesterolemia will develop angina pectoris in the late teenage years. The cholesterol levels in hypercholesterolemic homozygotes are usually 500 to 1,000 mg/dl. Xanthomas commonly occur by the age of 5 years and may be present at birth. Angina pectoris and myocardial infarction ordinarily occur before 20 years of age, and atherosclerosis also involves the aortic valve with resulting aortic stenosis.[29,30]

The metabolic pathway abnormality in monogenic hypercholesterolemia involves a deficiency in func-

TABLE 6. *Causes of Secondary Hyperlipidemia and Hyperlipoproteinemia in Children and Young Adults*

Disorder cause
Exogenous
Alcohol
Contraceptives
Steroid therapy
Endocrine and metabolic
Acute intermittent prophyria
Diabetes mellitus
Hypopituitarism
Hypothyroidism
Lipodystrophy
Pregnancy
Storage disease
Cystine storage disease
Gaucher disease
Glycogen storage disease
Juvenile Tay-Sachs disease
Niemann-Pick disease
Tay-Sachs disease
Renal
Chronic renal failure
Hemolytic-uremic syndrome
Nephrotic syndrome
Hepatic
Benign recurrent intrahepatic cholestasis
Congenital biliary atresia
Acute and transient
Burns
Hepatitis
Others
Anorexia nervosa
Idiopathic hypercalcemia
Klinefelter syndrome
Progeria (Hutchinson-Gilford syndrome)
Systemic lupus erythematosus
Werner syndrome

Table 6 is reproduced with permission from Kwiterovich P: Disorders of lipid metabolism, in Rudolph AM (ed): *Pediatrics*, ed 17. East Norwalk, Conn, Appleton-Century-Crofts, 1982, pp 331–336.

tional cell membrane receptors for low-density lipoproteins associated with faulty regulation of cholesterol biosynthesis.[31]

Combined Hyperlipidemia.[30] This disorder can present clinically as hypercholesterolemia, hypertriglyceridemia, or both. It is discussed in more detail in the section on "Familial Combined Hyperlipidemia."

Secondary

Treatment (See Table 7.)

Hypercholesterolemia. The American Heart Association recommends that cholesterol in the diets of American children be restricted to 100 mg/1,000 cal, not to exceed 300 mg/day; and that fat provide 30% of total calories, of which approximately 10% is saturated, up to 10% polyunsaturated, and 10% monosaturated. This diet should be the first level of treatment and may be most successful in those children with milder hypercholesterolemia (cholesterol levels of 225 to 250 mg/dl), a significant percentage of whom will not have familial hypercholesterolemia (FH). Many of the children with cholesterol levels above 250 mg/dl will have FH; rarely will a child with FH respond adequately to this diet, with a lowering of serum cholesterol to below the 95th percentile (Table 2). The next step is the reduction of dietary cholesterol to less than 200 mg/day and fat to about 25% of calories, of which approximately 8% is saturated, 8% is monosaturated, and up to 8% is polyunsaturated. In some of these children the addition of a drug to lower plasma cholesterol level may be indicated.

The types of food suggested for the treatment of hypercholesterolemia depends on the age of the patients. For infants, one of the commercially available formulas that is higher in polyunsaturated fat and lower in cholesterol than human or cow's milk may be recommended. Other dietary modifications include the appropriate selection of commercial baby and junior foods and solid foods.

The dietary principles for children 1 through 12 years of age are similar, with the sizes of the servings increasing with age. For example, the amount of lean meat, fish, or poultry per day is 2 to 3 ounces (up to 2 years), 3 to 4 ounces (2 to 5 years), and 4 ounces (6 to 12 years). Instead of hot dogs, regular hamburgers, luncheon meats, ice cream, and regular cheese, food choices should include tuna sandwiches, homemade low-fat hamburgers, chicken, sherbet, and low-fat cheeses. Whenever possible, a dietitian should participate in planning dietary programs. This enables the family to follow the subtle nuances of the diet more successfully and to avoid foods with hidden fats and cholesterol, such as commercially made cakes and cookies.

No adverse effects of these dietary practices for infants and children with FH have been reported. Potential problems such as impaired myelination of nerves in the first few years of life, increased vitamin E requirement, and slowing of growth have not been documented. Cholesterol and fat restricted diets similar to those described above have been consumed by children in Mediterranean countries for years without obvious adverse effects.

In summary, dietary treatment for hypercholesterolemia appears to be safe and relatively effective. However, potential side effects must continue to be monitored.

Drug Treatment

Children with familial hypercholesterolemia frequently require drug treatment in addition to dietary management. At present, the only drug used in children is a bile sequestrant (with the exception of the rare

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TABLE 7. *Treatment of Hyperlipidemia in Childhood*

Category	Treatment	Objective
General — all patients	Prevention of smoking	Maintenance of ideal weight for height
	Repetitive aerobic physical activity	Maintenance of cardiovascular fitness
	Avoidance of excess calories	
	Avoidance of alcohol	
Hypercholesterolemia (Type II)	1. Diet	Lower total and LDL cholesterol below the 95th percentile (see Tables 1, 2, 3)
	A. Cholesterol 100 mg/kcal and <300 mg/day. Fat 30% calories (10% monosaturated, 10% saturated, no more than 10% polyunsaturated)	
	B. Cholesterol <200 mg/day, fat <30% calories (10% monounsaturates, 8% saturates, no more than 10% polyunsaturates)	
	2. Drug	
	Bile sequestrant	
Hyperchylomicronemia (Type I)	1. Diet	Elimination of fasting chylomicronemia
	A. Reduction of fat to 10–15 g/day. Addition of medium-chain triglyceride	
Dysbetalipoproteinemia (Type III)	1. Diet	Reduction of total triglyceride and cholesterol to below 95th percentile
	Restriction of cholesterol and fat *plus* drug therapy	
	2. Drug	
Hypertriglyceridemia (Type IV)	1. Diet	Lower total triglyceride to below 95th percentile
	A. As above, "A," Type IIA. Calorie restriction if pertinent	
	B. Simple sugar restriction	
Hypertriglyceridemia Hyperchylomicronemia (Type V)	1. Diet 15% of calories as medium-chain triglyceride, 40% as carbohydrates, 20% as protein, and 25% as fat	Lower total triglyceride to below 95th percentile
		Elimination of fasting chylomicronemia

child with homozygous familial hypercholesterolemia). The results from liver function tests, complete blood counts, and serum concentrations of the fat-soluble vitamins (A, D, and E) and folate should be monitored yearly. A daily supplement of multivitamins, containing iron and folic acid, is the minimum medication required to lower the total plasma and LDL cholesterol levels to below the 95th percentiles.

Plasma exchange. Marked reductions in total plasma and LDL cholesterol levels occur when the plasma of FH homozygotes is exchanged for a cholesterol-free plasma protein fraction. The plasma exchange needs to be repeated every 2 weeks using a continuous-flow blood cell separator. FH homozygotes have reported the absence of angina pectoris while undergoing this treatment. Plasma exchange offers an alternative to surgery (partial ileal bypass, portacaval shunt) in FH homozygotes resistant to drug therapy.

Hypertriglyceridemia (Types I, IV, V)

Primary

Elevations of plasma triglycerides can be caused by genetic metabolic disorders, other diseases, diet, or a combination of the three. Either an overproduction or decreased clearance of triglyceride-rich lipoproteins can cause elevated triglyceride levels. In many cases of hypertriglyceridemia, two or three abnormalities can be combined in the same individual. Secondary causes of hypertriglyceridemia must be ruled out.

Infants and children with severe elevations of triglyceride levels are at risk of life-threatening recurrent pancreatitis. At present it is not clear whether hypertriglyceridemia results in increased risk of coronary heart disease in the adult. Available data, however, suggest that some forms of hypertriglyceridemia are associated with more risk for CHD than others.[52]

Nonfamilial Hypertriglyceridemia (Type IV). The great majority of children with primary hypertriglyceridemia will not have an inherited metabolic disorder. In most, dietary factors are primarily responsible for hypertriglyceridemia; obesity and lack of exercise may also be causative.

Familial Hyperchylomicronemia (Type I). In this disorder an absence of lipoprotein lipase activity results in a massive increase in chylomicrons with marked hypertriglyceridemia (as high as 10,000

mg/dl). Type I hyperlipoproteinemia usually occurs before the age of 10 years. Abdominal pain is the usual initial symptom. Other clinical features include eruptive xanthomas, hepatosplenomegaly, and lipemia retinalis. Although plasma cholesterol levels are somewhat elevated, the ratio of triglycerides to cholesterol is at least five and is usually ten.

Familial Hypertriglyceridemia (Type IV). Probably inherited as an autosomal dominant trait, this hyperlipoproteinemia is characterized by significant increases in plasma concentrations of triglycerides and VLDL. The disorder frequently does not develop until the adult years. Only rarely will a child with a VLDL level in the upper fifth percentile of the distribution have monogenic hypertriglyceridemia.

Hyperchylomicronemia and Increased VLDL Hyperlipoproteinemia (Type V). Patients with the Type V lipoprotein pattern have marked hypertriglyceridemia due to increased amounts of both chylomicrons and VLDL. This hyperlipidemia is sometimes due to a combination of a genetic and one or more secondary disorders. Common clinical findings include pancreatitis, eruptive xanthomas, lipemia retinalis, and abnormal glucose tolerance with hyperinsulinism. While the disorder is usually not expressed until young adulthood, several preadolescent children with Type V hyperlipoproteinemia have been described.

Familial Combined Hyperlipidemia. A disorder responsible for hypertriglyceridemia, this hyperlipidemia is characterized by increases of one or more lipoproteins in members of a single family. It is also called multiple-type hyperlipoproteinemia. Some family members have increases in VLDL alone (Type IV). Others have increases only in LDL (Type IIa), and still others have high levels of both VLDL and LDL (Type IIb). This rare form of hypelipidemia may be found in childhood and is usually associated with mild elevations of triglycerides and cholesterol levels. A diagnosis can be made with certainty only by screening, and depends on finding multiple lipoprotein phenotypes in the same family.

Secondary (See Table 6.)

Treatment

Treatment of hypertriglyceridemia in children is focused on dietary therapy (Table 7). The use of drugs is rarely, if ever, necessary.

Hyperchylomicronemia (Type I). The massive chylomicronemia and hypertriglyceridemia seen in Type I hyperlipoproteinemia respond quite well to a diet markedly reduced in fat content (10 to 15 g/day in a child), although this diet is difficult to maintain. Medium-chain triglycerides, which are absorbed directly through the portal vein, can be used in food preparation to replace fat.

Hypertriglyceridemia (Increased VLDL; Type IV). Children with elevated VLDL levels frequently have decreased concentrations of LDL and HDL. They should, like all healthy American children, follow a diet with modest restrictions of cholesterol and saturated fat (see section on "Hypercholesterolemia"). In about half the children with mild endogenous primary hypertriglyceridemia (120 to 200 mg/dl), triglyceride levels will be in the normal range when the second baseline sample is obtained.

If the child is obese, caloric restriction to normalize weight usually results in reduction of triglycerides to normal levels. If, after attaining usual weight for height, the child continues to have elevated triglyceride levels, concentrated sweets (candy, table sugar, pastries, etc.) should be restricted. Sweets should also be restricted in the diet of the thin child with hypertriglyceridemia. Alcohol intake should be restricted.

Hyperchylomicronemia and Increased VLDL (Type V). This hyperlipoproteinemia is rare in children. When it occurs, a diet containing 15% of calories as medium-chain triglycerides, 40% carbohydrate, 20% protein, and 25% fat may be successful in reducing the plasma triglyceride level.

Familial Dysbetalipoproteinemia (Type III)

This rare hyperlipoproteinemia is defined chemically by the presence of a plasma very low density lipoprotein with an abnormal chemical composition. Both plasma total cholesterol and triglyceride levels are elevated, sometimes to an equal degree, but concentrations can be extremely variable. This unusual lipoprotein pattern may be the result of several different or closely related genetic abnormalities. Premature vascular disease is common and xanthomas may occur in the disorder; however, the clinical hallmark is unusual yellow deposits in the creases of the palms.

Treatment

Familial dysbetalipoproteinemia requires strict dietary management (described in the section on "Familial Hypercholesterolemia") and special drug treatment (see "Recommendations for Treatment of Hyperlipidemia in Adults").

General Management

The goal of the American Heart Association for the child with hyperlipidemia is the gradual establishment of eating habits that will persist into adulthood. Dietary changes should be initiated gradually over several months and at a pace reasonable for the patient. Most children and adolescents can acquire new eating habits, but the dietary plan must be flexible enough to maintain a reasonable lifestyle and conducive to maintenance of a good self-image. The nutritional requirements for the growth and development of active, growing children and adolescents must also be kept in mind.

The severity of dietary restrictions varies with the individual and is dependent upon genetically inherited metabolic pathways. Some children and adolescents achieve normal plasma lipid levels with moderate dietary restrictions, others with more severe restrictions, and some must be treated with drugs.

The success of medical management depends on a clear understanding of the rationale, content, and objectives of the program. It is important that both the child and family understand the factors contributing to

the high coronary artery disease risk status and the proposed plan for reducing the risk. It is also important that the child and family not perceive the medical program as therapy for an illness, but rather the establishment of a lifestyle that will bring benefits of good health in the future.

Finally, reduction of elevated lipids is only one aspect of the total management plan. The patient should be strongly and repeatedly advised not to smoke cigarettes. The maintenance of ideal body weight should be emphasized. A program of repetitive aerobic exercise should be instituted to reduce LDL, increase HDL, and maintain ideal body weight.

References

1. Hass J: Study of Atherosclerosis Precursors in Children. Report of W.H.O. Consultation, WHO CVD-74.4. Geneva, 1974
2. Epstein FH, Lloyd J: Study of Atherosclerosis Precursors in Children. Report of WHO CVD-74.4. Geneva, 1974
3. Conference on the Health Effects of Blood Lipids: Optimal Distributions for Populations. Workshop Report: Epidemiologic Section III. The epidemiologic evidence from comparative childhood lipid distributions. *Prev Med* 1979;8:644–652
4. The Lipid Research Clinics Population Studies Data Book, vol I. The Prevalence Study. Lipid Metabolism Branch, Divison of Heart and Vascular Diseases, National Heart, Lung, and Blood Institute. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health. NIH Publication No. 80-1527. Government Printing Office, 1980
5. Tamir I, Heiss G, Glueck CJ, Christensen B, Kwiterovich P, Rifkind BM: Lipid and lipoprotein distributions in white children ages 6–19 year. The Lipid Research Clinics Program Prevalence Study. *J Chron Dis* 1981;34:27–39
6. Rifkind BM, Segal P: Lipid Research Clinics Program reference values for hyperlipidemia and hypolipidemia. *JAMA* 1983;250:1869–1872
7. Summary and recommendations of the Conference on Blood Lipids in Children: Optimal levels for early prevention of coronary artery disease. *Prev Med* 1983;12:728–740
8. Task Force Committee of the Nutrition Committee and the Cardiovascular Disease in the Young Council of the American Heart Association: Diet in the healthy child. *Circulation* 1983;67:1411A–1414A
9. Kesaniemi YA, Grundy SM: Significance of low density lipoprotein production in the regulations of plasma cholesterol level in man. *J Clin Invest* 1982;70:13–22
10. Simons LA, Balasubramaniam HJ, Holland J: Low density lipoprotein metabolism in the normal to moderately elevated range of plasma cholesterol: Comparisons with familial hypercholesterolemia. *J Lipid Res* 1983;24:192–199
11. Johnson BC, Epstein FH, Kjelsberg MO: Distributions and familial studies of blood pressure and serum cholesterol levels in a total community — Tecumseh, Michigan. *J Chronic Dis* 1965;18:147–160
12. Garrison RJ, Castelli WP, Feinleib M, Kannel WB, Havlik RJ, Padgett SJ, McNamara PM: The association of total cholesterol, triglycerides and plasma lipoprotein cholesterol levels in first degree relatives and spouse pairs. *Am J Epidemiol* 1979;110:313–321
13. Feinleib M, Garrison RJ, Fabsitz R, Christian JC, Hrubec Z, Borhani NO, Kannel WB, Rosenman R, Schwartz JT, Wagner JO: The NHLBI twin study of cardiovascular disease risk factors: Methodology and summary of results. *Am J Epidemiol* 1977;106:284–285
14. Ellefson RD, Elveback LR, Hodgson PA, Weidman WH: Cholesterol and triglycerides in serum lipoproteins of young persons in Rochester, Minnesota. *Mayo Clin Proc* 1978; 53: 307–320
15. Morrison JA, Kelly KA, Mellies MJ, deGroot I, Glueck CJ: Parent-child associations at upper and lower ranges of plasma cholesterol and triglyceride levels. *Pediatrics* 1978; 62: 468–477
16. Morrison JA, Khoury P, Laskarzewski PM, Mellies MJ, Kelly K, Glueck CJ: Intrafamilial associations of lipids and lipoproteins in kindreds with hypertriglyceridemic probands: The Princeton School Family Study. *Circulation* 1982;66:67–76
17. Morrison JA, Khoury P, Laskarzewski PM, Mellies MJ, Heinemeyer R, Glueck CJ: Familial associations of lipids and lipoproteins in families of hypercholesterolemic probands. *Arteriosclerosis* 1982;2:151–159
18. Namboodiri KK, Green PP, Kaplan EB, Morrison JA, Chase GA, Elston RC, Owen ARG, Rifkind BM, Glueck CJ, Tyroler HA: The Collaborative Lipid Research Clinics Program Family Study. IV. Familial association of plasma lipids and lipoproteins. *Am J Epidemiol* 1984;119:975–996
19. Schrott HG, Clarke WR, Weibe DA, Conner WE, Lauer RM: Increased coronary mortality in relatives of hypercholesterolemia school children: The Muscatine Study. *Circulation* 1979;59:320–326
20. Moll PP, Sing CF, Weidman WH, Gordon H, Ellefson RD, Hodgson PA, Kottke BA: Total cholesterol and lipoproteins in school children: Prediction of coronary heart disease in adult relatives. *Circulation* 1983;67:127–134
21. Schaefer EJ, Eisenberg S, Levy RI: Lipoprotein apoprotein metabolism (review). *J Lipid Res* 1978;19:667–687
22. Schonfeld G, Weidman SW, Witztum JL, et al: Alterations in levels and interrelations of plasma apolipoproteins induced by diet. *Metabolism* 1976;25:261–275
23. Green PHR, Glickman RM: Intestinal lipoprotein metabolism (review). *J Lipid Res* 1981;22:1153–1173
24. Goldstein JL, Kita T, Brown MS: Defective lipoprotein receptors and atherosclerosis. Lessons from an animal counterpart of familial hypercholesterolemia. *N Engl J Med* 1983;309: 288–296
25. Levy RI, Rifkind BM: The structure, function and metabolism of high-density lipoproteins: A status report. *Circulation* 1980;62(suppl IV):IV-4–IV-8
26. Hodgson PA, Ellefson RD, Elveback LR, et al: Comparison of serum cholesterol in children fed high, moderate, or low cholesterol milk diets during neonatal period. *Metabolism* 1976;25:739–746
27. Fredrickson DS, Levy RI, Lees RS: Fat transport in lipoprotein — an integrated approach to mechanisms and disorders. *N Engl J Med* 1967;276:34–42
28. Kwiterovich PO, Heiss G, Johnson N, Chase GA, Tamir I, Rifkind B: Assessment of plasma total cholesterol as a test to detect elevated low density (beta) lipoprotein cholesterol levels (Type IIa hyperlipoproteinemia) in young subjects from a population-based sample. *Am J Epidemiol* 1982;115:192–204
29. Goldstein JL, Hazzard WR, Schrott HG, Bierman EL, Motulsky AG: Hyperlipidemia in coronary heart disease. I. Lipid levels in 500 survivors of myocardial infarction. *J Clin Invest* 1973;52:1533–1543
30. Goldstein JL, Hazzard WR, Schrott HG, Biermann EL, Motulsky AG: Hyperlipidemia in coronary heart disease. II. Genetic analysis of lipid levels in 176 families and delineation of a new inherited disorder, combined hyperlipidemia. *J Clin Invest* 1973;52:1544–1568
31. Goldstein JL, Brown MS: Familial hypercholesterolemia, in Stanbury JB, Wyngaarden JB, Fredrickson DS, Goldstein JL, Brown MS (eds): *The Metabolic Basis of Inherited Disease*, ed 5. New York, McGraw-Hill Book Co, 1983, chap 33, pp 672–712
32. AHA Special Report. Recommendations for treatment of hyperlipidemia in adults. *Circulation* 1984;69:1065A–1090A

DAIRY COUNCIL DIGEST

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Composition and Nutritive Value of Dairy Foods

SUMMARY

Summarized in table form are the latest data on the nutrient composition of dairy foods as compiled by the U.S. Department of Agriculture. On the basis of these data, it is evident that dairy foods are a valuable source of many nutrients, especially calcium, riboflavin, phosphorus, protein, magnesium, vitamin B_{12} and vitamin A value. The composition of some dairy foods is regulated by federal and state standards of identity, which also have been tabulated in this review.

Milk is the lacteal secretion, practically free from colostrum, obtained by the complete milking of one or more healthy cows, which contains not less than 8.25% of milk-solids-not-fat and not less than 3.25% of milk fat (1). Chemically, milk may be defined as a dynamically balanced mixture of proteins, fats, carbohydrates, salts, and water co-existing as emulsions, colloidal suspensions, and true solutions (2a). Other milk foods may be prepared by the alteration of these relationships either by removal of, or by changing the ratio of, one or more of the components (2a). For example, removal of part or all of the water yields evaporated milk or dry whole milk, respectively, while selective changes in relative concentrations of several components yield one of several varieties of cheese.

This *Digest* will summarize, in table form, the latest data available relative to a) the nutrient composition of dairy foods and b) the standards of identity for these products, where applicable. The role of the nutrients of milk and other dairy foods in the overall health of individuals of all ages will be given brief consideration.

Dairy foods comprise a diverse group of foods (2a,3): a) fluid or market milk which includes homogenized whole milk, vitamin D whole milk, fortified milk, flavored milks, lowfat milks, and skim milk or nonfat milk; b) fermented milk and milk products including cultured buttermilk, sour cream, yogurt, acidophilus milk, and kefir; c) market creams with varying amounts of fat; d) butter, butter oil, and spreads; e) concentrated milk products including evaporated whole or skim milk, plain and sweetened condensed whole, lowfat, and skim milk, and condensed buttermilk; f) dried milk products including nonfat dry milk, dry whole milk, dry buttermilk, dry cream, and malted milk powder; g) over 400 varieties of cheese; and h) frozen desserts including ice cream, frozen custard, ice milk, and sherbet.

The U.S. milk supply was utilized in 1975 in the following manner: 44.4% for fluid milk and cream, 20.8% for cheese, 17.0% for butter, 10.4% for frozen desserts, 2.8% used in farms where produced, 2.2% for evaporated and condensed milk, and 2.4% for other uses (4).

Preliminary data from the U.S. Department of Agriculture indicate that for 1976 dairy foods excluding butter contribute only 11.2% of the food energy available for the U.S. civilian consumption, yet they provided 75.0% of the calcium, 38.6% of the riboflavin, 34.8% of the phosphorus, 21.9% of the protein, 21.6% of the magnesium, 20.1% of the vitamin B_{12}, 13.0% of the vitamin A value, 10.3% of the vitamin B_6, and 8.6% of the thiamin (5). It is significant to note that only 6 to 7% of calories in the food supply is contributed by milkfat (5). The high nutrient content of dairy foods when compared to the calories they contain makes these foods an "economical" source of nutrients for the calorie- and weight-conscious consumer. Furthermore, surveys (6-8) of the nutritional status of the U.S. population have repeatedly shown that the nutrients most likely to be consumed in less than recommended amounts (9) are calcium, riboflavin, vitamin A, vitamin C, and iron. Because dairy foods are good sources of the first three nutrients, consumption of these foods will help improve the nation's nutritional status.

COMPOSITION OF DAIRY FOODS

All the milk produced in the U.S. and marketed in the fluid form is from the cow with the exception of comparatively small quantities of goat's milk. The term milk in this review will thus refer solely to cow's milk.

The composition of cow's milk is not uniform but varies in response to physiological, genetic, and environmental factors among which are breed, stage of lactation, sea-

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son, environmental temperature, feeds, and geographical origin (2b). However, because market milk is a blend of milk from many herds, the variations are slight.

Table I shows the proximate analysis, mineral, and vitamin content of selected milks and cheeses, butter, and frozen desserts based on the latest data from the U.S. Department of Agriculture contained in Agriculture Handbook 8-1 (10). This handbook likewise includes nutrient data in terms of 100 grams and other common household measures which have not been incorporated in Table I. Any differences between these data and those used for nutrition labeling are due to a) the inclusion of data from samples other than, or in addition to, those used for determination of nutritional labeling values, and b) the rounding of values for nutrition labeling in accordance with federal regulation.

Space does not allow more in-depth discussion of the nutritive value of milk and dairy foods and of the individual nutrients in milk. Instead, current references and, when available, reviews for additional information are cited as follows: a) nutritive value (11-16), protein (2c), fat (2d,17,18), carbohydrate (2e), vitamins (2f,19,20), trace elements (21-23) and major elements (24).

It might be pertinent to mention briefly that there is evidence for interactions among specific nutrients in milk that further increase its nutritive value. For example, milk is the only natural dietary source of lactose. Recent evidence shows that lactose enhances the uptake of calcium by interacting with the absorptive cells of the intestines to increase their permeability to calcium (25).

In the U.S., the composition of most dairy foods is regulated by federal and state standards (26). The state, District of Columbia, and commonwealth standards apply to products produced and marketed within their respective jurisdiction. The federal standards promulgated by the Food and Drug Administration apply to products entering into interstate commerce. Most states and the District of Columbia have either adopted the federal standards or allow products complying with them to enter their areas. Products with no standards may lawfully be shipped in interstate commerce and are regulated under the provisions of the Federal Food, Drug and Cosmetic Act. Any changes in the federal standards which thereafter may or may not affect state standards appear in the Federal Register and thereafter are contained in the Code of Federal Regulations Title 21, Part 18 of which pertains to milk and creams, Part 19 to cheeses, and Part 20 to frozen desserts (1).

Table II summarizes the new federal standards for milk and cream (1,27,28) and sour cream (1,29). A proposed amendment to the acidified sour cream and acidified sour half-and-half standards of identity has been filed by the Milk Industry Foundation to provide for alternative nomenclature for these products, that is, "sour cream, directly set" and "sour half-and-half, directly set" (30). New FDA standards of identity for frozen desserts have been proposed (31) and the final regulation is expected to be issued by the end of 1976 or early 1977.

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REFERENCES

1. *Code of Federal Regulations*. Title 21, Food and Drugs, Parts 10 to 199. Washington, D.C.: U.S. Government Printing Office, 1976.
2. Webb, B. H., A. H. Johnson, and J. A. Alford (Eds). *Fundamentals of Dairy Chemistry*. 2nd ed. Westport, Connecticut: The AVI Publishing Co., Inc. 1974. (a) p. 58, (b) p. 1, (c) p. 87, (d) p. 125, (e) p. 275, (f) p. 325.
3. U.S. Department of Agriculture. *Cheese Varieties and Descriptions*. Agriculture Handbook No. 54. Washington, D.C., 1969.
4. Milk Industry Foundation. *1976 Milk Facts*. Washington, D.C., 1976.
5. Friend, B., and R. Marston. National Food Situation, NFS-158. U.S. Department of Agriculture, Economic Research Service, Nov. 1976.
6. U.S. Department of Agriculture. *Food and Nutrient Intake of Individuals in the United States, Spring 1965*. Household Food Consumption Survey 1965-66, Report No. 11. Washington, D.C., January 1972.
7. U.S. Department of Health, Education, and Welfare. *Ten-State Nutrition Survey 1968-1970*. DHEW Publication No. (HSM)72-8130 to 72-8134.
8. U.S. Department of Health, Education, and Welfare. *First Health and Nutrition Examination Survey, United States, 1971-1972*. DHEW Publication No. (HRA) 74-1219-1.
9. *Recommended Dietary Allowances*, 1974. Food and Nutrition Board, National Academy of Sciences-National Research Council, Washington, D.C., 8th ed., Publication 2216.
10. U.S. Department of Agriculture, Consumer and Food Economics Institute. *Composition of Foods, Dairy and Egg Products, Raw, Processed, Prepared*. Agriculture Handbook 8-1, 1976.
11. Rusoff, L. L. J. Dairy Sci. *53*:1296, 1970.
12. Rusoff, L. L. Dairy Ind. *40*:171, 1975.
13. Ashton, W. M. Dairy Ind. *37*:535, 1972.
14. Ashton, W. M. Dairy Ind. *37*:602, 1972.
15. Brink, M. F. In *Byproducts from Milk*. B. H. Webb, and E. O. Whittier (Eds). 2nd ed. Westport, Connecticut: The AVI Publishing Co., Inc., 1970, pp. 381-404.
16. Kon, S. K. *Milk and Milk Products in Human Nutrition*. FAO Nutritional Studies No. 27. FAO, Rome, 1972.
17. Posati, L. P., J. F. Kinsella, and B. K. Watt. J. Am. Diet. Assoc. *66*:482, 1975.
18. Feeley, R. M., P. E. Criner, and H. L. Slover. J. Am. Diet. Assoc. *66*:140, 1975.
19. Thompson, S. Y. J. Dairy Res. *35*:149, 1968.
20. Gregory, M. E. J. Dairy Res. *34*:169, 1967.
21. Murthy, G. K. CRC Crit. Rev. Environ. Control. Jan. 1974.
22. Oberleas, D., and A. S. Prasad. Am. J. Clin. Nutr. *22*:196, 1969.
23. Murthy, G. K., and U. S. Rhea. J. Dairy Sci. *54*:1001, 1971.
24. Feeley, R. M., P. E. Criner, E. W. Murphy, and E. W. Toepfer. J. Am. Diet. Assoc. *61*:505, 1972.
25. Armbrecht, H. J., and R. H. Wasserman. J. Nutr. *106*:1265, 1976.
26. U.S. Department of Agriculture, Agricultural Marketing Service. *Federal and State Standards for the Composition of Milk Products (and Certain Non-Milkfat Products)*. Agriculture Handbook No. 51, Washington, D.C., 1974.
27. Food and Drug Administration. Fed. Regist. *38*:27924, 1973.
28. Milk Industry Foundation. Am. Dairy Rev. *35*:24, Dec., 1973.
29. Food and Drug Administration. Fed. Regist. *39*:19993, 1974.
30. Food and Drug Administration. Fed. Regist. *41*:15702, 1976.
31. Food and Drug Administration. Fed. Regist. *39*:27144, 1974.

Because of the scope and the importance of this subject, the abstracts customarily given in the section "Worth Noting" have been omitted from this issue.

Table 1 **Nutrient content of selected milk and milk products in edible portion of common measures of food.**[a]

Milk Product	Energy kcal	Protein N x 6.38 g	Lipids					Carbohydrate g	Ash g	Minerals								Vitamins							
			Total g	Saturated Fatty Acids g	Monounsaturated Fatty Acids g	Polyunsaturated Fatty Acids g	Cholesterol mg			Calcium mg	Iron mg	Magnesium mg	Phosphorus mg	Potassium mg	Sodium mg	Zinc mg	Ascorbic Acid mg	Thiamin mg	Riboflavin mg	Niacin mg	Pantothenic Acid mg	Vitamin B_6 mg	Folacin mcg	Vitamin B_{12} mcg	Vitamin A I.U.
Milk (1 c = 244 g)	150	8.03	8.15	5.07	2.35	.30	33	11.37	1.78	291	.12	33	228	370	120	.93	2.29	.093	.395	.205	.768	.102	12	.871	307
Cheeses [d]																									
Blue	100	6.07	8.15	5.30	2.21	.23	21	.66	1.45	150	.09	7	110	73	396	75	0	.008	.108	.288	.490	.047	10	.345	204
Brick	105	6.59	8.41	5.32	2.44	.22	27	.79	.90	191	.12	7	128	38	159	74	0	.004	.100	.033	.082	.018	6	.356	307
Brie	95	5.88	7.85	–	–	–	28	.13	.76	52	.14	–	53	43	178	–	0	.020	.147	.108	.196	.067	18	.468	189
Camembert	85	5.61	6.88	4.33	1.99	.20	20	.13	1.04	110	.09	6	98	53	239	68	0	.008	.138	.179	.387	.064	18	.367	262
Caraway	107	7.14	8.28	–	–	–	–	.87	.93	191	–	8	139	–	196	–	0	.009	.128	.051	.054	–	–	.077	299
Cheddar	114	7.08	9.40	5.98	2.66	.27	30	.36	1.11	204	.19	8	145	28	176	88	0	.008	.108	.023	.117	.021	5	.234	300
Cheshire	110	6.62	8.68	–	–	–	29	1.36	1.02	182	.06	6	131	27	198	–	0	.013	.083	–	–	–	–	–	279
Colby	112	6.74	9.10	5.73	2.63	.27	27	.73	.95	194	.22	7	129	36	171	87	0	.004	.106	.026	.060	.022	–	.234	293
Cottage, creamed (1 c = 210 g)	217	26.23	9.47	5.99	2.70	.29	31	5.63	2.86	126	.29	11	277	177	850	78	Trace	.044	.342	.265	.447	.141	26	1.308	342
–lowfat (2%) (1 c = 226 g)	203	31.05	4.36	2.76	1.24	.13	19	8.20	3.14	155	.36	14	340	217	918	95	Trace	.054	.418	.325	.547	.172	30	1.609	158
–lowfat (1%) (1 c = 226 g)	164	28.00	2.30	1.46	.66	.07	10	6.15	3.14	138	.32	12	302	193	918	86	Trace	.047	.373	.289	.486	.154	28	1.431	84
Cottage, dry curd (1 c = 145 g)	123	25.04	.61	.40	.16	.02	10	2.68	1.00	46	.33	6	151	47	19	68	0	.036	.206	.225	.236	.119	21	1.196	44
Cream	99	2.14	9.89	6.23	2.79	.36	31	.75	.33	23	.34	2	30	34	84	15	0	.005	.056	.029	.077	.013	4	.120	405
Edam	101	7.08	7.88	4.98	2.30	.19	25	.40	1.20	207	.12	8	152	53	274	1.06	0	.010	.110	.023	.080	.022	5	.435	260
Feta	75	4.03	6.03	4.24	1.31	.17	25	1.16	1.47	140	.18	5	96	18	316	82	0	–	–	–	–	–	–	–	–
Fontina	110	7.26	8.83	5.44	2.46	.47	33	.44	1.07	156	.06	4	–	–	–	99	0	.005	.058	.043	–	–	–	–	333
Gjetost	132	2.74	8.37	5.43	2.23	.27	–	12.09	1.35	113	–	–	126	–	170	–	0	–	–	.230	–	–	1	–	–
Gouda	101	7.07	7.78	4.99	2.20	.19	32	.63	1.12	198	.07	8	155	34	232	1.11	0	.009	.095	.018	.096	.023	6	–	182
Gruyere	117	8.45	9.17	5.36	2.85	.49	31	.10	1.22	287	–	–	172	23	95	–	0	.017	.079	.030	.159	.023	3	.454	346
Limburger	93	5.68	7.72	4.75	2.44	.14	26	.14	1.07	141	.04	6	111	36	227	60	0	.023	.143	.045	.334	.024	16	.295	363
Monterey	106	6.94	8.58	–	–	–	–	.19	1.01	212	.20	8	126	23	152	85	0	–	.111	–	–	–	–	–	269
Mozzarella	80	5.51	6.12	3.73	1.86	.22	22	.63	.74	147	.07	5	105	19	106	63	0	.004	.069	.024	.018	.016	2	.185	225
–low moisture	90	6.12	6.98	4.41	1.99	.22	25	.70	.82	163	.09	6	117	21	118	70	0	.005	.077	.027	.020	.018	2	.206	256
–part skim	72	6.88	4.51	2.87	1.28	.13	16	.78	.93	183	.04	7	131	24	132	78	0	.005	.086	.030	.022	.020	2	.232	166
–low moisture–part skim	79	7.79	4.85	3.08	1.38	.14	15	.89	1.05	207	.07	7	149	27	150	89	0	.006	.097	.034	.026	.022	3	.262	178
Muenster	104	6.64	8.52	5.42	2.47	.19	27	.32	1.04	203	.12	8	133	38	178	80	0	.004	.091	.029	.054	.016	3	.418	318
Neufchâtel	74	2.82	6.64	4.20	1.92	.18	22	.83	.41	21	.08	2	39	32	113	15	0	.004	.055	.036	.160	.012	3	.075	321
Parmesan, grated	129	11.78	8.51	5.41	2.48	.19	22	1.06	1.99	390	.27	14	229	30	528	90	0	.013	.109	.089	.149	.030	2	–	199
–hard	111	10.14	7.32	4.65	2.13	.16	19	.91	1.71	336	.23	12	197	26	454	78	0	.011	.094	.077	.128	.026	2	–	171
Port du Salut	100	6.74	8.00	4.73	2.65	.21	35	.16	.57	184	–	–	102	–	151	–	0	–	.068	.017	.060	.015	5	.425	378
Provolone	100	7.25	7.55	4.84	2.10	.22	20	.61	1.34	214	.15	8	141	39	248	92	0	.005	.091	.044	.135	.021	3	.415	231

Ricotta, whole milk (1 c 246 g)	428	27 70	31 93	20 41	8 92	95	124	7 48	2 51	509	94	28	389	257	207	2 86	0	032	480	256	–	108	–	831	1208
–partially skim milk (1 c 246 g)	340	28 02	19 46	12 12	5 69	64	76	12 64	2 83	669	1 08	38	449	308	307	3 30	0	052	456	192	–	049	–	716	1083
Romano	110	9 02	7 64	–	–	–	29	1 03	1 90	302	–	–	215	–	340	–	0	–	105	022	–	–	2	–	162
Roquefort	105	6 11	8 69	5 46	2 40	37	33	97	1 83	188	16	8	111	29	52	59	0	011	166	208	491	035	14	192	297
Swiss	107	8 06	7 78	5 04	2 06	28	26	96	1 00	272	05	10	171	31	74	1 11	0	006	103	026	122	024	2	475	240
Tilsit	96	6 92	7 36	4 76	2 02	20	29	53	1 38	198	08	4	142	18	213	99	0	017	102	058	088	–	–	595	296
Pasteurized Process –American	106	6 28	8 86	5 58	2 54	26	27	45	1 66	174	11	6	211	46	406	85	0	008	100	020	137	020	2	197	343
–Pimento	106	6 27	8 84	5 57	2 53	29	27	49	1 68	174	12	6	211	46	405	84	–	008	100	022	137	020	2	197	358
–Swiss	95	7 01	7 09	4 56	2 00	18	24	60	1 66	219	17	8	216	61	386	1 02	0	004	078	011	074	010	–	349	229
–American Cheese Food	93	5 56	8 97	4 38	2 04	20	18	2 07	1 52	183	24	9	130	79	337	85	0	008	125	040	158	–	–	317	259
–Swiss Cheese Food	92	6 21	6 84	–	–	–	23	1 78	1 64	205	17	8	149	81	440	1 01	0	004	113	029	142	–	–	852	243
–American Cheese Spread	82	4 65	6 02	3 78	1 76	18	16	2 48	1 70	159	09	8	202	69	381	73	0	014	122	037	194	033	2	113	223
Cold pack American Cheese Food	94	5 57	6 93	4 35	2 03	20	18	2 36	1 26	141	24	8	113	103	274	85	0	009	126	021	277	040	2	363	200
Butter																									
Butter, regular[e] (1 pat = 5 g[f])	36	04	4 06	2 52[g]	1 17[g]	15[g]	11	Trace	10	1	01	Trace	1	1	41	Trace	0	Trace	002	002	–	Trace	Trace	–	153[h]
Butter, whipped[e] (1 pat = 3 8 g[f])	27	03	3 08	1 92[g]	89[g]	11[g]	8	Trace	08	1	0	Trace	1	1	31	Trace	0	Trace	001	002	–	Trace	Trace	–	116[h]
Frozen Desserts																									
Ice Cream, vanilla																									
–regular (approx 10% fat) hardened (1 c = 133 g)	269	4 80	14 32	8 92	4 14	53	59	31 72	1 29	176	12	18	134	257	116	1 41	70	052	329	134	654	061	3	625	543
–rich (approx 16% fat) hardened (1 c = 148 g)	349	4 13	23 68	14 74	6 84	88	88	31 95	1 11	151	10	16	115	221	108	1 21	61	044	283	115	562	053	2	537	897
–French, soft serve (1 c = 173 g)	377	7 04	22 52	13 51	6 66	98	153	38 28	1 78	236	43	25	199	338	153	1 99	92	080	448	178	1 066	095	9	996	794
Ice Milk, vanilla –hardened (1 c = 131 g)	184	5 16	5 63	3 51	1 63	21	18	28 98	1 35	176	18	19	129	265	105	55	78	076	347	118	882	085	3	875	214
–soft serve (1 c = 175 g)	223	8 03	4 62	2 68	1 33	17	13	38 38	2 10	274	28	29	202	412	163	88	1 17	117	541	184	1 031	133	5	1 385	
Sherbet, orange (1 c = 193 g)	270	2 16	3 82	2 38	1 10	14	14	58 73	77	103	31	15	74	198	88	1 33	3 86	033	089	131	082	025	14	158	185

a) Adapted from Consumer and Food Economics Institute *Composition of Foods, Dairy and Egg Products, Raw, Processed, Prepared* U S Department of Agriculture Agriculture Handbook 8-1, 1976

Figures shown represent average nutrient values The Handbook 8-1 includes standard error of the mean

b) Dash (–) denotes lack of reliable data for a constituent believed to be present in measurable amount

c) Products contain added nonfat milk solids

d) Values are for 1 oz (28 g) serving except for Cottage cheese and Ricotta cheese

e) Values based on data for regular salted butter Unsalted butter contains 11 mg of sodium per 100 g

f) Weight applies to pat which is 1 inch square, ⅓ inch high, and with a count of 90 per pound

g) Values based on data for fat extracted from whole milk

h) Values for vitamin A represent year-round average

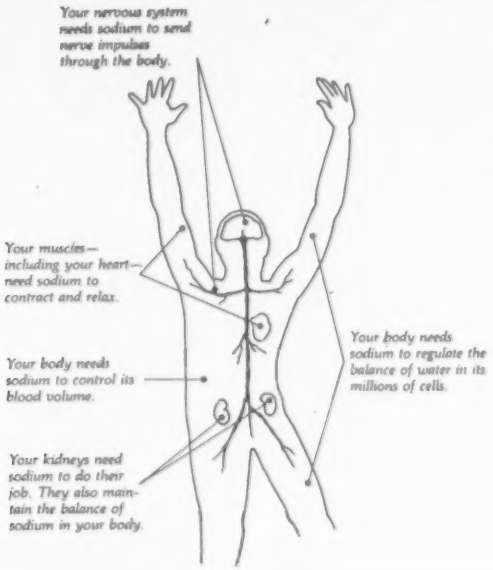
i) Weight applies to pat which is 1¼ inch square, ½ inch high, and with a count of 120 pound

Sodium Fact Sheet

What is sodium?

- Sodium is an essential nutrient.
- It is one of the minerals your body must have in order to function normally.

Your body needs sodium.


Your nervous system needs sodium to send nerve impulses through the body.
Your muscles—including your heart—need sodium to contract and relax.
Your body needs sodium to control its blood volume.
Your kidneys need sodium to do their job. They also maintain the balance of sodium in your body.
Your body needs sodium to regulate the balance of water in its millions of cells.

How much sodium do you need?

The Food and Nutrition Board of the National Academy of Sciences recommends from 1,100 to 3,300 milligrams) of sodium daily for adults. About ½ to 1½ teaspoons of salt contain this much sodium.

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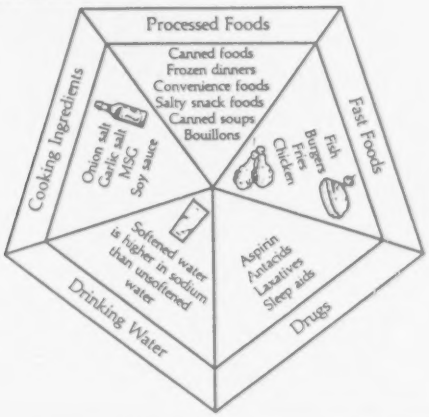
Where do you get sodium?

You get sodium from the foods you eat. Almost all foods contain small amounts of sodium naturally. However, you also get sodium from other sources. *The biggest single source of sodium in your diet is sodium chloride—better known as table salt.* Other sources of sodium include:



Is there a problem if you eat too little or too much sodium?

Because sodium is readily available in the American food supply, most people don't have to worry about getting too little sodium. For most *healthy* Americans, too much sodium is not a problem either. Your body takes care of changes in the amount of sodium you consume. If you consume only a little, your kidneys save it. If you consume more sodium than your body needs, your kidneys eliminate it in the urine.

Is there an easy way to make sure you are eating the right amount of sodium?

People differ in the exact amount of sodium their bodies need. However, a good rule of thumb is:

Eat a wide variety of foods from the Basic Four Food Groups in moderation.

Why the Basic Four Food Groups?
Combined, the Basic Four Food Groups (Milk, Meat, Fruit-Vegetable, and Grain) can provide the balance of nutrients that your body needs for good health.

Why a variety of foods?
Foods within each group vary in the amount of nutrients (including sodium) they contain. By choosing different foods in the group, there's less chance of getting too much or too little of any one nutrient.

Why moderation?
When it comes to nutrition, it is possible to get too much of a good thing—whether it's calories or a nutrient like sodium. But by choosing moderate size servings and eating a variety of foods from the Basic Four Food Groups, you can avoid excesses.

So, remember these three guidelines for keeping your sodium intake and your total nutritional picture in balance:

- The Basic Four Food Groups
- Variety
- Moderation

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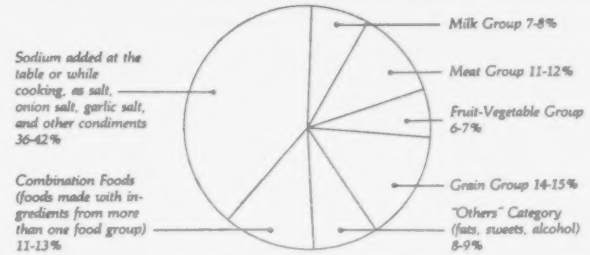
Sodium Wheel

The Food and Nutrition Board of the National Academy of Sciences recommends that you eat about 1100-3300 mg (milligrams) of sodium a day. But Americans on the average eat about 3600-5850 mg of sodium daily. Where does all that sodium come from? The chart at the right compares the amounts of sodium that come from various food items in the average American diet.


Sodium added at the table or while cooking, as salt, onion salt, garlic salt, and other condiments 36-42%
Combination Foods (foods made with ingredients from more than one food group) 11-13%
Milk Group 7-8%
Meat Group 11-12%
Fruit-Vegetable Group 6-7%
Grain Group 14-15%
"Others" Category (fats, sweets, alcohol) 8-9%

Notice that no single food group is responsible for the sodium in the American diet. So, if you're watching your sodium intake, there's no need to avoid any specific food group.

However, if you want to reduce the amount of sodium you eat, you need accurate information on the amount of sodium in your food. And that's where the Sodium Wheel comes in. While it doesn't contain every food you eat, it includes the sodium content of over 100 popular American food items. In addition, you can get more information on the sodium in your foods by:

- Obtaining a list of the amount of sodium in foods from the U.S. Government Printing Office.
- Checking food labels for the amount of sodium per serving or for ingredients with the word "salt," "soda," or "sodium." Food manufacturers often add salt or sodium to canned, frozen, and other convenience foods.
- Writing to the consumer information division of your favorite fast food restaurant for information on the sodium content of their foods.

The biggest source of sodium in your diet is the salt shaker. Almost half the salt Americans consume is added at the stove or table. You can reduce your sodium intake by as much as 1300-2500 mg just by preparing and eating your food without adding salt or other sodium-containing flavor enhancers.

The wheel shows mg of sodium in a serving. The following serving sizes were used for the foods on the Sodium Wheel:

Milk Group

Milk, yogurt	1 cup
Cheese	1 ounce
Ice cream, pudding	½ cup
Cottage cheese	½ cup

Meat Group

Meat, fish, poultry	3 ounces
Bacon	2 slices
Bologna	1 ounce
Frankfurter	1
Sausage	1 link
Peanut butter	2 tablespoons
Egg	1 large

Fruit-Vegetable Group

Cooked, juice, raw	1 cup

Grain Group

Bread	1 slice
Noodles, rice	1 cup
Cold cereal	1 cup
Saltines, graham crackers	2
Biscuits, cornbread, waffles	1
Stuffing	1 cup
Hot cereal	¼ cup

"Others" Category

Butter, margarine	1 teaspoon
Beer	12 fluid ounces
Cola, coffee	8 fluid ounces
Cake-type doughnut	1
Danish pastry	1
Wine	3½ fluid ounces
Sherbet	1 cup
Cake	1/12 of 9" cake
Pie	1/8 of 8" pie
Potato chips	10
Popcorn	1 cup
Cookie	1
Pickle	1
Olives	4

Combination Foods

Pot pie	1 (8 ounces)
Main course, soup	1 cup
Pizza	2 slices (7 ounces)
Beef dinner	1 (11 ounces)
Fast food items	1

Condiments

Salt: table, onion, garlic	1 teaspoon
Sauces: barbecue, soy, tartar, Worcestershire	1 tablespoon
Salad dressing	1 tablespoon
Mayonnaise	1 tablespoon
Horseradish	1 tablespoon
Catsup	1 tablespoon
Meat tenderizer	1 teaspoon
Bouillon	1 cube
Baking soda, baking powder	1 teaspoon
Monosodium glutamate (MSG)	1 teaspoon
Mustard	1 teaspoon
Parsley, pepper, oregano, paprika, sage, thyme	1 teaspoon

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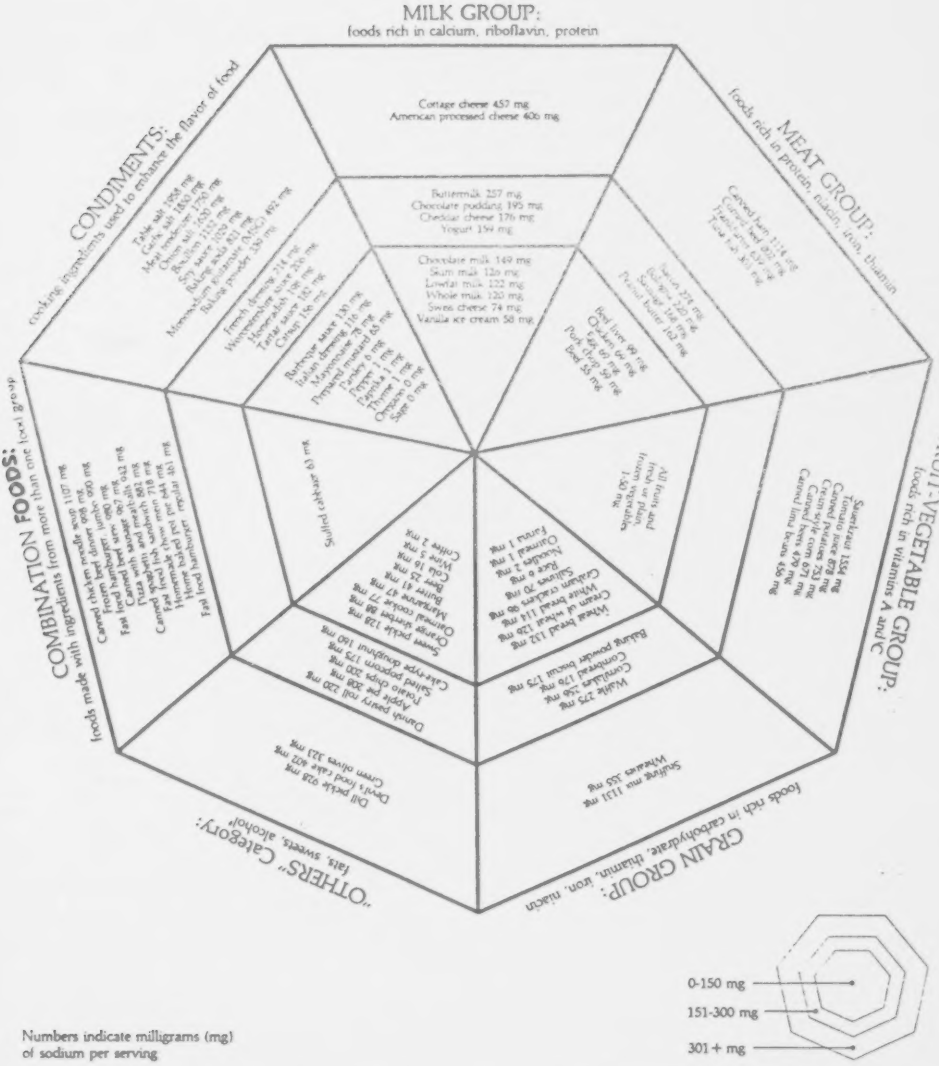
Sodium Wheel


MILK GROUP:
foods rich in calcium, riboflavin, protein
Cottage cheese 457 mg
American processed cheese 406 mg
Buttermilk 257 mg
Chocolate pudding 195 mg
Cheddar cheese 176 mg
Yogurt 154 mg
Chocolate milk 149 mg
Skim milk 126 mg
Lowfat milk 122 mg
Whole milk 120 mg
Swiss cheese 74 mg
Vanilla ice cream 58 mg
MEAT GROUP:
foods rich in protein, niacin, iron, thiamin
Canned ham 1114 mg
Canned beef 822 mg
Hamburger 632 mg
Tuna fish 430 mg
Bacon 274 mg
Sausage 230 mg
Shrimp 148 mg
Peanut butter 143 mg
Beef liver 99 mg
Chicken 69 mg
Eggs 69 mg
Pork chop 59 mg
Beef 55 mg
FRUIT-VEGETABLE GROUP:
foods rich in vitamins A and C
Sauerkraut 1554 mg
Tomato juice 878 mg
Creamed potatoes 679 mg
Creamed corn 570 mg
Canned peas 420 mg
Canned lima beans 350 mg
Spinach 85 mg
All fruits and fruit or plant juices 10 mg
GRAIN GROUP:
foods rich in carbohydrate, thiamin, iron, niacin
Sodium in 1131 mg
Walnuts 350 mg
Waffle 275 mg
Cornbread 176 mg
Cornflakes 146 mg
Baking powder biscuit 175 mg
Wheat bread 132 mg
Cream of wheat 114 mg
White bread 120 mg
Oatmeal 3 mg
Rice 0 mg
Soybeans 70 mg
Chicken noodles 66 mg
Almonds 1 mg
Oatmeal 1 mg
Farina 1 mg
"OTHERS" Category:
fats, sweets, alcohol
Dill pickle 928 mg
Dietet. food cake 402 mg
Green olives 323 mg
Danish pastry roll 320 mg
Apple pie 308 mg
Potato chips 300 mg
Salted popcorn 175 mg
Cake-type doughnut 160 mg
Sweet potato 128 mg
Orange sherbet 88 mg
Mayonnaise 73 mg
Butter 47 mg
Beer 25 mg
Cola 16 mg
Wine 5 mg
Coffee 2 mg
Shortening 0 mg
Sugar 0 mg
Saltine cracker 69 mg
COMBINATION FOODS:
foods made with ingredients from more than one food group
Canned chicken noodle soup 1107 mg
Fast food hamburger with cheese 690 mg
Canned corn beef dinner 680 mg
Fast food hamburger 660 mg
Canned beef sandwich with gravy 642 mg
Pizza with sausage and mush 602 mg
Canned spaghetti with meat 718 mg
Fast food milk shake (16 oz) 440 mg
Home baked popcorn (1 oz) 361 mg
Fast food hamburger regular 361 mg
CONDIMENTS:
cooking ingredients used to enhance the flavor of food
Table salt 1938 mg
Garlic salt 1800 mg
Meat tenderizer 1750 mg
Onion salt 1630 mg
Bouillon 1122 mg
Soy sauce 1029 mg
Baking soda 821 mg
Monosodium glutamate (MSG) 492 mg
Baking powder 389 mg
French dressing 714 mg
Worcestershire sauce 238 mg
Horseradish 198 mg
Tartar sauce 180 mg
Catsup 156 mg
Barbecue sauce 130 mg
Italian dressing 118 mg
Mayonnaise 78 mg
Prepared mustard 65 mg
Gravy 6 mg
Pimiento 1 mg
Olives 1 mg
Pickles 1 mg
Olives 0 mg
Sugar 0 mg
Numbers indicate milligrams (mg) of sodium per serving
0-150 mg
151-300 mg
301+ mg

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Your Sodium Lifestyle

Have you noticed the headlines urging people to cut down on their consumption of salt?

Have you cut down?

Should you?

Salt's been getting a lot of press lately because it's a major source of sodium in the American diet. (Salt is the common name for sodium chloride.)

Sodium is an essential nutrient. Your body needs sodium in order to function. But how much do you need?

The Food and Nutrition Board of the National Academy of Sciences recommends 1100-3300 mg (milligrams) of sodium a day as a safe and adequate amount for most Americans. However, on the average, Americans consume about 3600-5850 mg of sodium a day. And that's what the headlines are all about.

Keep in mind that these figures are only averages. Some Americans consume very little sodium. Others consume a lot. The amount of sodium you consume may actually be quite different from the average.

How do you know if you are eating the recommended amount of sodium?

Well, if you had the time and the desire, you could calculate your sodium intake by keeping track of everything you ate, checking food tables to find the amount of sodium in each food, and adding all the figures together. Then you'd have to include the milligrams of sodium you added to the foods you ate during cooking or at the table.

Or, you can take the Sodium Lifestyle Quiz. While the quiz won't give you an exact sodium intake, it will help you estimate if you are consuming more sodium than is recommended. And it will also help you identify the major sources of sodium in your diet.

Sodium Lifestyle Quiz

Directions: Read the questions. Circle the answers that describe you best. Then check the answer key to help you estimate your overall sodium intake.

1. When do you add salt to your food?

   a. Before tasting
   b. After tasting, if necessary
   (c.) Rarely

2. How often do you use garlic salt, onion salt, meat tenderizer, monosodium glutamate (MSG), and/or soy sauce to cook or flavor your food?

   a. Every day
   b. 2 or 3 times a week
   (c.) Less than once a week

3. How often do you eat canned foods, TV dinners, canned soups, bouillon, or other convenience foods (like packaged macaroni and cheese)?

   a. Every day
   (b.) 2 or 3 times a week
   c. Less than once a week

4. How often do you eat pickled, brined, or cured foods like sauerkraut, pickles, corned beef, ham, hot dogs, bologna, or salami?

   a. Every day
   (b.) 2 or 3 times a week
   c. Less than once a week

5. How often do you eat at fast food restaurants?

   a. Every day
   b. 2 or 3 times a week
   (c.) Less than once a week

6. How often do you eat salty snacks like chips?

   a. Every day
   (b.) 2 or 3 times a week
   c. Less than once a week

Answer key

How many a's did you circle? Three or more a's indicate you're probably exceeding the recommended range and getting more sodium than your body really needs. Read on to find out more about sodium in your diet.

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Sodium in your diet

1&2. *Flavor enhancing ingredients like salt contain sodium.* Use of these flavor enhancers during cooking or at the table adds 1300-2500 mg of sodium a day to the average American diet. For example:

	mg sodium
1 t Table salt	1938
1 t Garlic salt	1850
1 t Meat tenderizer	1750
1 t Onion salt	1620
1 t MSG	492
1 t Soy sauce	343

3&4. *Processed foods contain added sodium.* Salt and other ingredients with sodium are used widely in food processing. They preserve perishable items, flavor foods, cure meats (like hot dogs and sausages), ferment foods (like turning cabbage into sauerkraut), and retard the growth of mold and bacteria.

In general, the more preparation the food industry does for you, the higher the amount of sodium in the food. For example:

	mg sodium
1 cup of corn:	
Fresh	trace
Frozen	7
Canned, cream-style	671
1 Cucumber	10
1 Dill pickle	928
Lean pork (3 ounces)	59
Ham (3 ounces)	1114
Homemade beef pot pie	644
Frozen beef pot pie	1093
1 cup beef bouillon	1152
1 cup canned chicken noodle soup	1107

5. *Fast foods contain added sodium.* Fast food restaurants often add sodium to their products. But the sodium content of fast foods varies considerably from dish to dish and from chain to chain:

	mg sodium
French fries	4-128
Shakes	157-329
Burgers:	
Regular hamburger	401-520
Cheeseburger	535-1085
Specialty burger (like Whopper®, Big Mac®)	909-1848
Fish sandwiches	700-780
Chicken dinners	1915-2285
Mexican food:	
Taco	79-460
Tostada	101
Bean burrito	272

If you had a Big Mac®, fries, and a chocolate shake, you'd be consuming 1400 mg of sodium in a single meal!

6. *Low-nutrient snack foods like chips contain sodium.* Salty snack foods are usually high in calories and low in nutrients. In addition, the food industry adds sodium to these foods during processing. For example:

	mg sodium
1 ounce potato chips (about 10)	200
1 ounce corn chips (about 30)	231
1 cup caramel corn	262
1 ounce twist pretzels (about 5)	505

To sum it all up

Your body needs sodium to survive. Sodium occurs naturally in small amounts in almost all foods. So, you probably meet your body's sodium needs just by eating foods that contain sodium naturally.

But if you circled three or more a's in the quiz, you and the food industry are adding quite a lot of sodium to the amounts already provided by Mother Nature. As a result, you may be eating more sodium than your body needs.

To consume sodium in the 1100-3300 mg range recommended by the Food and Nutrition Board of the National Academy of Sciences there's no need to avoid any specific foods. Just think "variety" when changing your daily salt/sodium habits.

- Try using various spices (cinnamon, nutmeg, allspice, etc.) to flavor your foods instead of salt and other sodium-containing flavor enhancers.
- Make an herb shaker. Combine:

  2 t thyme
  1½ t sage
  2 t rosemary
  2½ t marjoram
  2½ t savory

  Use this combination to flavor vegetables, meats, fish, or poultry.
- Balance convenience foods and fast foods meals with home-cooked ones. For example, if you eat a fast food lunch, select a low-sodium meal made with fresh fruits, vegetables, dairy foods, meats, and grains for dinner.

And, remember moderation. Almost half the salt Americans consume is added at the stove or the table. If you need to cut down your sodium intake, start with the salt shaker. This is one area where you are in control. Remember:

- Always taste before salting.
- Take the salt shaker off the table. If you have to get up to get the salt, adding it will become a conscious (not automatic) effort.

Finally, to make sure your body gets all the nutrients—including sodium—that it needs, eat a wide variety of different foods every day from the Basic Four Food Groups:

- 2 servings of milk/dairy foods
- 2 servings of meat or meat alternates
- 4 servings of fruits and vegetables
- 4 servings of whole-grain or enriched grain products

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NCI

Robert F. Anderson
Executive Director

May 20, 1987

The Honorable Tom Harkin
SH-316
Hart Senate Office Building
Washington, DC 20510-1502

Dear Senator Harkin:

As one Iowa State grad to another, and for your information and not necessarily for your hearing record, I will be happy to explain briefly the use of sodium salts in cheese making. By the way, I was a Dairy Industry major and have been involved in the manufacture of dairy products for 50 years. Iowa has a strong record in cheese production, ranking 5th in the nation.

Common salt (NaCl) is the only sodium added to milk in the cheese making operation. Later if the cheese is to be processed sodium phosphate and/or sodium citrate are used as emulsifiers to ensure the desired sliceability or melt characteristics.

In the manufacture of cheddar cheese a few basic facts: each 100 pounds of milk will yield 10 pounds of cheese; most of the lactose is converted to lactic acid or drawn off with the whey; salt is added to the cheese curd at the rate of about 2 1/2 pounds per 1000 pounds of milk used; salt in the finished cheese is about 1.7%.

Salt is needed to: (1) aid in the removal of whey from the curd, (2) harden and shrink the curd, (3) retard further acid development, (4) check the growth of undesirable forms of fermentation, (5) aid the development of typical cheese flavor, and (6) enhance flavor.

An unsalted cheese quickly becomes bitter and unpalatable. Too much salt makes a cheese mealy and dry and prolongs curing time. Too little salt encourages undesirable gas formation, fermented flavor and a soft weak body.

Salt is the controlling mechanism that encourages the development of expected flavor, body and texture characteristics. Because too little or too much salt permits undesirable characteristics to develop, the level used in cheese is self-limiting.

There are certain cheeses, such as Swiss, Edam and Mozzarella, that add little or no salt directly to the curd. They are, however, soaked in a saturated brine solution for from one to

four days to gain the benefits of salt on flavor and body development. I've attached a list giving the sodium content of the more popular cheeses. The size and shape of the cheese and the concentration and temperature of the brine greatly affect the rate of salt absorbtion by the cheese.

Process cheese was invented to provide uniformity in cheese. As I explained earlier, too much or too little of any of the controlling factors, such as temperature, bacterial flora, salt and time, that go to make a cheese may result in an undesirable characteristic in the cheese. The perfect cheese is a blend of various characteristics. Simply stated, a skilled cheese blender takes a cheese that is too hard and blends it with a cheese that is too soft; the cheeses are ground up and mixed together and heated to form a desired body and texture. In applying heat to the cheese the fat may no longer be held in place by the casein. An emulsifier is needed to keep the fat within the cheese.

The first emulsifier used was sodium citrate. Later sodium phosphates were developed because they performed better and whereas the citrate did not have bacteriostatic properties the phosphate did.

Other compounds have been tried but, due to undesirable side effects, hygienic and health questions, were not considered practical. Tartrates, although technically suitable for processing, are not used because they formed "sandiness" in cheese. Lactates and acetates proved totally unsuitable. Calcium salts in place of sodium salts have been tried but are not used because of insolubility. Nevertheless, research continues.

I trust this capsule explanation is helpful. If I can be of further assistance please give me a call. I've enclosed some information the National Dairy Council has put together on nutrition that may be of interest to you.

Sincerely,

R. F. Anderson
Executive Director

RFA/eam

Enclosures

SODIUM INFORMATION

21 CFR Part 101 - Food Labeling -- has been revised to include sodium in the list of nutrients required in the declaration of nutrition information. Provided, sodium content per serving may be declared without triggering complete nutrition information declaration.

In addition to nutrition information the following descriptive terms may be used under the following circumstances.

(1) "Sodium free" - food contains less than 5 milligrams of sodium per serving.

(2) "Very low sodium" - food contains 35 milligrams or less sodium per serving.

(3) "Low sodium" - food contains 140 milligrams or less sodium per serving.

The National Cheese Institute has compiled a data bank of sodium information of the following domestic cheese. NCI will continue to monitor cheese samples and will notify the industry if the data indicates a change. The sodium information may be used by anyone wishing to label cheese and conforms to the applicable FDA standard of identity. Neither sodium labeling nor nutrition labeling are mandatory for cheese. However, if the cheese is labeled with nutrition information sodium must be included. Further, if nutrition or sodium information is provided it must be placed within the information panel and the responsibility for compliance rests with the packager.

A one-ounce serving size for cheese is recommended. Based on this serving size the label declaration in milligrams of sodium per serving is as follows:

CHEESE	Mg. of Na per 1 oz. Serving
Asiago - fresh	280
Asiago - medium	320
Asiago - old	330
Blue	400
Brick	180
Camembert	240
Cheddar	200
Colby	190
Cream	100
Edam	200
Feta	400
Gorgonzola	380
Gouda	210
Gruyere	95
Monterey	180
Low-Moisture Part-Skim Mozzarella	190
Muenster	190
Neufchatel	120
Parmesan (not grated)	350
Provolone - aged	290
Provolone - rindless current	230
Romano (not grated)	350
Swiss (wheel)	140
Swiss (rindless)	80